



UNIVERSITÀ DEGLI STUDI
DI TRENTO

UNIVERSITY
OF TWENTE.

Department of Information Engineering and Computer Science

MASTER'S DEGREE IN

Human Computer Interaction and Design

FINAL DISSERTATION

TITLE

Using Digital Technology to Encourage Cultural Change
and Positive Behaviours

Case Study of Project SunCard

SUPERVISORS

Antonella De Angeli
Adolfo Villafiorita Monteleone
Pietro Benedetto Molini

STUDENT

Teresa Santos Coelho

ACADEMIC YEAR 2017/2018

Capa negra de saudade

No momento da partida

Segredos desta cidade

Levo comigo p'ra vida

Index

Abstract	5
Introduction	6
List of Used Terms and Figures	8
Background	10
Generative Welfare	10
Welfare a Km 0.....	11
Trentino Alto-Adige.....	12
Related Work	14
Influence of Positive Activities.....	14
Youth in Europe.....	14
Technology as a Behavior changer	16
User-Centered Design Method	17
SunCard	18
Aim.....	18
Design Approach	18
Planning.....	19
Analysis of the Target Group	20
Personas.....	20
Problem Needs	21
Scenarios of Future Use	22
Functional Model: Use Case Diagram	23
Object Model: Class Diagram.....	23
Credits Exchange	26
System's Flow	26
Acquiring Credits.....	27

Using Credits	28
Credits' Reimbursement	28
Prototyping	29
Benchmark.....	29
Organizational Data	29
Designing Interfaces for Kids	29
Low Fidelity Prototyping	30
Design Changes	32
High Fidelity Prototyping.....	32
High Fidelity Functional Prototyping.....	35
User Testing	36
Setting	36
Results	38
Implementation	40
Landing Page	40
Website.....	41
Future Work	42
Conclusion.....	43
References	44
Appendix	45

Abstract

Technology and digitalization have been increasing their role and presence in our lives for the past decades. We now use different devices that allow us to complete our tasks along the day and we are getting more and more dependent on them. A phenomenon is only a reality for adults but also for children. Besides being a toy, technology is now part of their education, entertainment and development right from the beginning. With this, children are starting to grow apart from their communities, isolated from other children and connecting mostly online. The following research question is put: How can digital technology encourage cultural change and positive behaviors? This study will be conducted using the project SunCard as a reference.

This thesis describes the design process that came as a result of the development of the Project SunCard. This project intends to use positive activities to change this reality, such as volunteerism, sports, cultural, naturalistic and tourist activities offered and developed on the Val di Sole, Italy. Aiming at working on a promotional and preventive level with children until the age of 18, by promoting these positive and protective activities, the project SunCard hopes to avoid the triggering of paths of fragility and other negative influences and behaviors within this age group. Following the User-Centered Design (UCD) Method, the process started with ideation, the collection of data, research and concept design phase for creating a responsive website, optimised for mobile use. The concepts defined were used as a tool to communicate and evaluate ideas. With the first prototypes developed, user studies were conducted, feedback collected and future work suggested. The research conducted and the feedback from the prototype developed seem to indicate the future success of this project. An analysis of the cultural values of the community encourages and justify the application of Generative Welfare projects, such as SunCard, in the territory of Trentino Alto-Adige. The users experienced the use of the prototype as fun and interesting.

Due to the restricted timespan of this research, the website, currently under development, could not be further tested. The future research should allow conducting a second iteration of the UCD process. Nevertheless, ambitious results are expected from this innovative project in a short time span.

Introduction

This thesis describes the steps of the design process of the SunCard platform, developed in the context of the SunCard project in the academic year 2017-2018. The project SunCard was born in Val di Sole (Trentino Alto-Adige, Italy) in 2017 and started working officially in 2018, as part of the Generative Welfare action line named “Welfare a Km Zero” by the Carito Foundation and by the Autonomous Province of Trento. The Community of Val di Sole leads the project, working together with the partners APPM, Cooperativa Progetto 92 and Rete Riserve Alto Noce, with the collaboration of public and private subjects, able to contribute during the development of the project.

SunCard has the ambitious goal of using the classic local subjects of Welfare, the world of volunteerism and the sports, cultural, naturalistic and tourist realities of the Valley for a social purpose. Furthermore, it aims to work on a promotional and preventive level to children and teenagers, promoting positive and protective activities in order to avoid the triggering of paths of fragility and the need for future behavior intervention.

Summarising, the SunCard project focuses on three main objectives:

- promotion of positive activities (sports, cultural and naturalistic) among children and young people (3-18 years of age);
- stimulation of access to volunteering by children and their families;
- increase in the use of cultural, sporting and naturalistic opportunities of the valley by residents

The prerequisites of this innovative project are found in documented practical experiences that demonstrate how sport, cultural and naturalistic activities, as well as participation in voluntary activities, are protective factors in childhood and adolescence, create inclusion, participation and sociability, and break isolation.

This promotion and stimulation will be facilitated throughout a platform that allows not only the listing of all local volunteering events organized by Volunteer Organizations, as well as all sport, cultural and naturalistic activities offered in the community by merchants and other associations. In order to better reach the public target, the platform will be available online, facilitating also, the coordination of all entities and documentation of later analysis of the data and results of this experiment.

The thesis is divided as follows: To start with, the definition of terms follows the introduction, as well as a listing of all figures presented. In the following section, there is an elaboration on the background, mentioning projects and realities that are intrusively connected SunCard and its projected success. The next section, mentions related work, namely projects such as Youth in Europe project that encouraged and inspired this project, as well as a discussion on the use of positive activities to influence youth and about the use of technology to shape these behavior changes. Later, there is an introduction on User-Centered Design Method, used to orient this project, followed by a description of the SunCard project in more detail and dives into the research approach. Then, a description of all the stages of the design process: Analysis of the Target Group, that focuses on the work developed to understand the target group and create scenarios of future use; Explanation of the functional flow of the system and the credits exchange; and Prototypes developed and its user testing as well as a section on the work implemented. To finish with, two sections on present future work and conclusion.

List of Used Terms and Figures

Terms

Event – A volunteer work activity organized by a Voluntary Organization.

Merchant – A local Merchant that organizes activities and advertises them as offers

Offer – A positive activity, such as a cultural or sports oriented activity.

Organization – A Voluntary Organization.

Volunteer – A user of the system, a kid between 3 – 18 years old or his parent.

Voluntary Organization – A local Voluntary Organization that looks for volunteers for its volunteer events and advertises them on SunCard.

Figures

Figure 1 - 5 Definitions of a Generative Welfare

Figure 2 – Substance use in Iceland Amongst 15-16 Year Old

Figure 3 – Sports Participation with a club or a team 4 times per week or more often

Figure 4 – User-Centered Design Method

Figure 5 – Simple Use Case Diagram

Figure 6 – Class Model Diagram

Figure 7 – Acquiring Credits Flow

Figure 8 – Using Credits Flow

Figure 9 – Low Fidelity Prototype

Figure 10 – SunCard's Logo

Figure 11 – Color Studies

Figure 12 – High Fidelity Prototype

Figure 13 – Functional Prototype's Hotspot Definition

Figure 14 – User's Demographics

Figure 15 – Test Setting

Figure 16 – User Performing a Task

Figure 17 – Landing Page

Background

Generative Welfare

The last economic crisis brought negative socio-economic consequences. In Italy, for instance, the number of poor people increased by one and a half million between 2011 and 2012, hitting record levels and so as the number of unemployed people. (Cinzia Canali, 2016) Unfortunately, these numbers are not only the reality in Italy, but also of many other European countries that try to fight this reality on a daily basis.

These issues are particularly severe among the young, bringing with it economic, psychological and social consequences. This is because poverty not only affects people but also, even if not directly, the organizational structures and governments, due to the increase of the levels of social inequality, disbelief, and disrespect for the basic people's rights. This change requires policymakers and governments to take action and drive change within the society and, possibly even change its cultural values. (Vecchiato T. , 2015)

Numerous studies suggest that one of these changes could be, for instance, towards empowering and encouraging individuals to be responsible for the society they belong to, which is one of the ideals of a Welfare¹. First introduced in 2012, this approach aims to ensure, to all individuals of a certain system, the access of all social services, defined as essential. It has been long applied in companies, for instance, in initiatives aimed at increasing the well-being of the worker (and/or his family) through, not only monetary retributions, but also by the provision of other services, namely canteen, insurance, and assistance, etc., often known as the employee's privileges. The companies, on the other hand, by offering these privileges, may increase the employees' productivity and well-being as well as have fiscal advantages. (Vecchiato T. , 2015)

The term Welfare, however, grew and evolved to other related terms, one of which, Generative Welfare (Figure 1), a better fit better to the project SunCard. A Generative Welfare goes beyond the idea of "collecting and redistribute". It works towards a transformation, not only limited to financial resources but also on the way of thinking: "from the cost-logic onto the generated-value-logic". This means that it goes beyond the idea of an administration without any income into one where the transformation of the available resources and steering them into innovation regarding the problems is highly encouraged. (Zancan, 2013) (Rossi, 2016) (Canali, 2014)

¹ <http://www.welfaregenerativo.it/p/cose-il-welfare-generativo>



Figure 1 - 5 Definitions of Generative Welfare

SunCard is exactly the type of project that fits into this philosophy. The principles just presented enhance the necessity of investing in initiatives aimed not only at solving problems, but also at producing other resources so that the same problems can be faced in the future with those same contributions (diminishing the financial weight). Hence, the need to grow a new culture and create projects, steering people to be responsible and aware, while aiming for the collaboration between different fields. By encouraging people to contribute to their own community and pushing forward economically the local business, receiving something in return. A process that will be described later.

Welfare a Km 0

The project “Welfare a Km 0”², in which the project SunCard lines to, is a line of action aimed to support and strengthen the culture and practice of community and Generative Welfare in the Trentino Alto-Adige’s territory. Its welfare system, like all other ones, has to deal with the increase of vulnerable families, the gradual weakening of social ties and with the decrease in resources available to the institutions and associations.

The project foresees the encouragement of pro-active behaviors to the territory through a comparison with the main social, economic and institutional actors, building a shared analysis of the context problems as well as to set up design laboratories and stimulate the creation relevant projects to the community. With this, it is aimed to create a large number of projects that go accordingly to the perspective of generative welfare (one of which SunCard).

The main objectives of the “Welfare a Km 0” go according to three different levels: The first, build a convergent path to a single entity capable of listening, select, encourage and deal with problems. The second, to mobilize the entire community to generate a welfare, mixing the most traditional actors (the welfare services’ providers) with subjects that go beyond these traditional perimeters (such as artisans, traders, traffic wardens, bankers...). The third, to monitor and

² <http://www.welfarekmzero.it/>

encourage innovations that can enrich and improve the welfare offered in the Trentino Alto-Adige's community.

Understanding the scope of the activities developed in the region is important, just as much as understanding its cultural values and the history. A welfare culture can be introduced into communities gradually, since by doing this, changes also apply to the way people behave (culturally and within the community) and look at their own problems.

Trentino Alto-Adige

The success of initiatives such as the ones previously described does not only depends on the projects and the initiatives created but also on the society and its cultural and societal values. Therefore, the special autonomy of Trentino Alto-Adige is also a fundamental aspect to the success of this project.

This autonomy arises from the Italian-Austrian agreement signed in Paris on the 5th of September of 1946 by Alcide De Gasperi and Karl Gruber (Ghai, 2013) and did not appear overnight. There is a secular history at its origins, made up of complex events, traditions and rules that the communities have set themselves. In this case in particular, it is the attitude of “self-government” and of “doing by ourselves” while maintaining the ability to dialogue outside its borders³, that will be extremely important.

With the autonomy, a territory once marked by its high levels of poverty and rates of emigration (with communities still in all five continents) became now a reference to other regions in Italy. The autonomy generated was used to encourage the feelings of belonging, cohabitation, peace, sustainability, development as well as a motor of solidarity. The stormy history of war of this region (that goes over centuries), allowed people to understand that if they do not support each other in difficult times, (thus driving isolation and selfishness) it becomes more difficult to fight against obstacles and push towards prosperity. As such, in this region, charities and social associations were always generously helped and financed, which supports again, the ideal of the autonomy as a symbol of responsibility and community development, and not only a symbol of tax and governmental independence.⁴

Additionally, with the roots in the mountain, the people of this region became very connected to their territory and therefore, its nature. Famous by the mountains and lakes, this region invests

³ http://www.autonomia.provincia.tn.it/presentazione_home/pagina10.html

⁴ http://www.autonomia.provincia.tn.it/presentazione_home/pagina12.html

part of its funds in sustainability and on outdoor activities and associations all over the territory. It also invested quite a lot of effort in introducing and educating people to recycle, using public transportation and taking advantage of everything their territory has to offer, values that are now deeply rooted in their culture. Moreover, is the commitment of the system of protected areas of Trentino: 25 visitor centers and information points, which are educational references towards biodiversity and its protection, many of them designed for children, educating and making both tourists and locals aware from a young age ⁵.

All these reasons before enumerated, encourage and justify the possibility and the choice to build Generative Welfare projects, such as SunCard, in the territory of Trentino Alto-Adige.

⁵ <https://www.ufficiostampa.provincia.tn.it/Comunicati/Capire-la-sostenibilita-e-vivere-la-natura-oltre-mille-proposte-con-esperienze-di-qualita-per-turisti-e-abitanti>

Related Work

Influence of Positive Activities

Schools have enormous influence on teenagers, since they are the place where the formal learning takes place. Besides, they are also a center for the majority of teenagers' social lives, where they develop most part of their relationships and make friends that will go with them along the way (Blum, 2002) which is not a surprise, as both families and schools are highly influential in their development and learning. However, they are not the only significant factors in a young person's development. There is a whole *spectrum* of the child's self-understanding that goes way beyond home and school, which can come, for instance, from extracurricular activities and hobbies. (Benard, 1993)

Despite the importance of hobbies and activities, more than making children and teenagers participate in extracurricular activities, it is important to create and the habit of doing it for pleasure. In Denmark, for instance, this association seems so natural that they have an expression for it: "Going to Something" (*at går til noget*) which points out to the many sports institutions, voluntary associations, and other public and private institutes, where children usually spend their weekdays after school. These institutions and centers develop a variety of activities that each child can identify himself with. It seems that this encouragement allowed Danish children to intrinsically create an association between afterschool and these activities and it is now part of their cultural values and highly supported by the government. (Anderson, 2008)

Another study in New Zealand (O'Connor, 2011) tried to identify whether young people that participate in community-based activities do indeed better and feel more connected to their communities and schools than the ones that do not participate. They conducted this study over many years, measuring the influence of these activities in terms of general wellbeing, perceived social support and life satisfaction. It concluded that, in fact, the participation in these activities has a positive influence, helping young people to do well and feel better connected. Thus, providing opportunities and encouraging the participation in community-based activities must be considered an important component in community programmes (Spaaij, 2011).

Youth in Europe

Understanding the why and the how, helps developing strong and concrete strategies that support the use of positive activities to influence child's development and growth. Many governments have been adopting this type of activities to fight internal problems, such as depression, isolation and drug problems.

Youth in Europe⁶, in fact, is a project that aims to decrease the substance and drug amongst children and adolescents in cities and local communities, which looks to provide effective tools for policymakers and practitioners in the field of drug use prevention. Through an evaluation of drug use on a local level, followed by risk and protective factors regarding the drug initiation consumption through local, as described by the programme outline⁷, the introduced programme in 1998, has led to the lowest prevalence of drug use in Europe amongst teenagers of 15-16 years old (Figure 2).

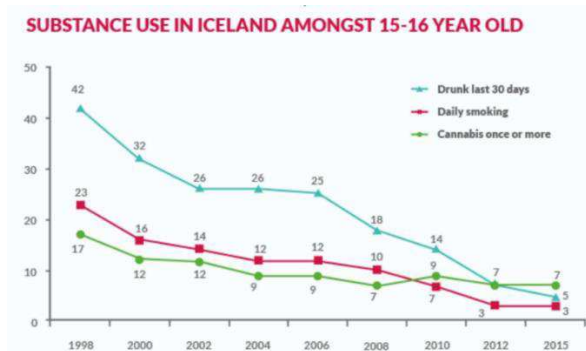


Figure 2 – Substance use in Iceland Amongst 15-16 Year Old⁸

Literature related to this experiment states that the drug use decline in this target group in Iceland is due to this decade-long partnership between researchers, public health policymakers and practitioners that focused on peer influence, parental supervision and alternative activities in the community. (Inga Dora Sigfusdottir, 2011)

In order to evaluate changes in prevalence of substance use, parental monitoring and leisure-time activities in the experimental intervention and control communities, the researchers analysed the results through time and analyzed the data pairing interaction terms for treatment with control effects (Pampel, 2000). Figure 3 shows the results of this analysis regarding the practice of sports.

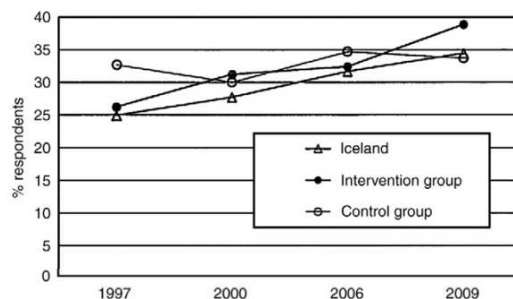


Figure 3 – Sports Participation with a club or a team 4 times per week or more often (Alfgeir Logi Kristjansson, 2010)

⁶ <http://youthineurope.org/>

⁷ http://www.ecad.net/activ/Youth_Programme.pdf

⁸ <http://youthineurope.org/>

This being said, encouraging youth to participate in organized recreational and extracurricular activities and sports and to increase opportunities for such participation has indeed a significant positive influence on youth. (Inga Dora Sigfusdottir, 2011)

Even though at a first glimpse, there is no direct relationship between these projects, SunCard is an adaptation of this model. Providing tools to policymakers and people is a way of encouraging and influencing behaviors within communities.

Technology as a Behavior Changer

On 12 March 1989, the first Internet browser, Mosaic, was born, and marked the start of a new social paradigm and the internet era. Nowadays, it still possible to observe a great difference between those who were born before the internet and who grew up and were educated in it (Falbe, 2015) and can be easily observed in kids born after the year 2000. Most of them even before learning speaking, already know how to unblock a smartphone.

With the spread of internet and adoption into everyday objects, internet became not only a source of information but also a resource of entertainment, connection between others. (Falbe, 2015). As a consequence, digital technology is often pointed to as the reason why children not going outside. Yet, studies conducted in the United States have shown little difference regarding the time that children who follow the American Academy of Pediatrics media guidelines⁹ spend outdoors and those who do not. This leads to the belief that the problem is not the technology, but the way technology is being designed to and used by children. For this reason, when done right, digital technology can be part of the solution, working as an encouragement for children to go from indoors to outdoors and make them connect with nature. (Koepfler, 2016)

Having documented with practical studies that demonstrate how sport, cultural and naturalistic activities, as well as participation in voluntary activities, are protective factors in childhood and adolescence, creating inclusion, participation and sociability, and breaking isolation, it is obvious that there is need to change another paradigm regarding technology. Out of all things, technology might be the fundamental role regarding this encouragement.

⁹ <https://www.aap.org/en-us/about-the-aap/aap-press-room/Pages/American-Academy-of-Pediatrics-Announces-New-Recommendations-for-Childrens-Media-Use.aspx>

User-Centered Design Method

User-Centered Design (UCD), as defined by the Interaction Design Foundation¹⁰ is an “iterative design process in which designers focus on the users and their needs in each phase of the design process”. This means that this method focuses on the design process of a certain product or interface, involving the user in multiple steps along the design process. These steps come right from the early stages, the research stages, and go through the whole process, through (between others), interviews, user testing with early and final stage prototypes. By making the design process centered on the user, designers expect to create highly usable and accessible products and go according to the user needs and expectations.

More than involving the user through the whole process, it is important to mention the iterative factor, this method applies. By involving the user in different stages, designers can iterate the main process, constantly improving their product using the direct feedback received. Figure 4 illustrates the mentioned behavior.

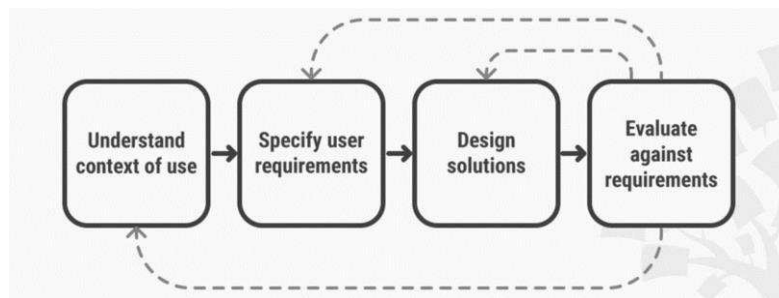


Figure 4 - User-Centered Design Method¹⁰

¹⁰ <https://www.interaction-design.org/literature/topics/user-centered-design>

SunCard

Aim

SunCard's principles enhance the importance that it is necessary to invest in initiatives aimed not only at solving problems but also at producing other resources so that the same problems can be faced in the future. Hence, the need to grow a new culture and create projects steer people to be responsible and aware and aim at supporting the collaboration between different fields. A process that will be described ahead.

The project has the ambitious goal of making the subjects of Welfare, the world of volunteerism and the sports, cultural, naturalistic and tourist realities of the Valley for a social purpose. Second, to work on a promotional and preventive level with a target group that goes from the ages of 3 to 18 years old, promoting positive and protective activities in order to avoid the triggering of paths of fragility and the need for reparation.

Specifically, the project will provide for the issuance of a nominative card for the Valley's residents aged between 3 and 18 years, with an annual activation fee. This card can be used by children and young people in order to access sports, cultural and naturalistic activities, while it can be recharged by carrying out volunteer activities recognized by the project. The project involves collaboration with the volunteers of the Valley and with the sports, cultural and naturalistic, as well as the involvement of local schools. The current project has a future goal of continuation also thanks to the introduction of additional channels of funding, promotion and collaboration.

Design Approach

This report adopts a User-Centered design approach, as previously described, was adopted. It is defined in ISO (2010)¹¹ as "an approach to interactive systems development that aims to make systems usable and useful by focusing on the users, their needs and requirements, and by applying human factors/ergonomics, usability knowledge, and techniques". The iterative key activities of this approach are:

1. Plan the human centered-process
2. Understand and specify the context of use
3. Produce design solutions

¹¹ <https://www.iso.org/obp/ui/fr/#iso:std:iso:9241:-210:ed-1:v1:en>

Planning

The planning of the design process consisted of three phases: the analysis of the target groups, the use of design principles, and prototyping, which will be better explained and described in the sections that follow.

Analysis of the Target Group

Personas

There are three main groups that will intervene with the SunCard system: the Volunteer Organizations, that organize the volunteering events, Merchants, that coordinate cultural or sport-related activities and finally the volunteers, the main user of this system.

Martina

Martina is 36 years old vivid user of any type of social media, runs a Volunteer Organization called *TutorMe*, in the Val di Sole. Her Organization looks frequently for volunteers to help her teaching small children maths and English and help them with their homework. She now does this search mostly on word-to-mouth thanks to his volunteers that have been working together with her organization for longer. Unfortunately, this process is slow and does not always achieve the number she is hoping for. She is now looking to make young people help her and turn teaching these kids funnier and less professional, as well as to make her campaigns and events between the younger groups in the region, through schools, talks or internet advertisement.



Gianluca

Gianluca is 42 years old and runs a Mountain Sports Shop with his wife that rents the equipment and organizes sports activities for individuals, families and companies, such as canyoning, BTT, Mountain Bike excursions, and many others. He is always looking for ways to advertise his activities to the public, especially to young people, namely in the low periods, during the week after school and on weekends outside of the high season. Recently his company started organizing activities dedicated to this target group, such as paintball so that children can come and play with a small group of friends. He has been using his website as his main point of contact with his prospective clients but he is looking for better ways of doing it.



Ines

Ines is 14 years old girl that lives in Dimaro, in Val di Sole, with her younger brother and her parents. She is a scout and enjoys going to the mountains and camping with her friends and family. During summer, she goes quite often canoning with her parents in the region and to the lakes for a swim. During the week, after school, she usually does not have anything to do and ends up staying with her brother playing video games at home or using her smartphone or computer, going through social media or other apps. Her mother suggested her to try some new activity, like volunteering or a sport but she does not know where to look for it. She wanted to try paintball but it is quite expensive and she does not want her parents to spend that amount of money.



Problem needs

The problem-need technique can be used to brainstorm about the future functionalities or flow of a certain system. The problem-needs presented below follow from the user research previously presented in this section.

Problem Need 1 – Martina

Problem	I do not have enough to conduct my volunteering activities
Need	I need more volunteers to help and participate
Solution	Advertise in different ways, look for new partnerships with local associations, municipality, schools or projects currently being developed

Problem Need 2 – Gianluca

Problem	I want to push business up, especially in low season
Need	I need to attract more customers in those periods
Solution	Advertise in different ways, look for new partnerships with local associations, municipality, schools or projects currently being developed

Problem Need 3 – Ines

Problem	I do not have anything to do after school and because of that I stay home
Need	I need to find activities happening near my home
Solution	Find a place where all these available activities are listed

Scenarios of future use

In the user-centered design process, the scenarios are used also in order to make sure that everyone, without or without a technical background, can understand how the interaction between a user and the system being developed may work. Scenarios are especially suited for this goal. Given that the system does not exist yet, these scenarios are scenarios of future use. They will be presented taking into account the research presented before.

Future Use Scenario 1 – Martina

Martina is looking for new volunteers that can help her with English classes, Tuesday at 16h. She decided to advertise it at the SunCard system, after hearing about it on a community meeting. She created an account because it is her first time using it, described his association and his work. Then, she posted the event, explaining what she is looking for and for how long she would like the volunteers to work for. Two days after Martina had three volunteers, a group of friends that wanted to do something together. That event was a success and she decided to have English classes also on Saturdays.

Future Use Scenario 2 – Gianluca

Gianluca, the outdoor sports activity organizer and material renting, decided to invest in a paintball field and wants to promote this new activity in the community. He has been doing that on his website, but unfortunately, it has not been able to reach enough young people using this method. Gianluca found out that he can post it on the SunCard platform. He decides to read about how it works and decides to create an account. He fills all the necessary data and creates a new activity. A week after he gets a small group of friends, asking to play!

Future Use Scenario 3 – Ines

Suggested by her mom, Ines is looking for an activity to do after school instead of staying home with her brother. She does not know where to find those activities. She heard at school, her teacher talking about this new website where people can go and try new cultural and sports activities for free! She decided to take a look. She got interested and talked with her parents that supported her. She decided to teach English to kids the Tuesday after and change those credits for a paintball session. Since also her friends were also part of that system, they did everything together. They had so much fun, that they decided to try other activities.

Functional Model: Use Case Diagram

The Use Case Diagram (Constantine, 2001) describes the functional behavior of the system as seen by the users. It can be used as a mean of communicating with the users and other stakeholders about what the system intended to do. A simplified version of the Use Case Diagram of the SunCard system can be found in Figure 5. In Appendix D the associations used can be consulted.

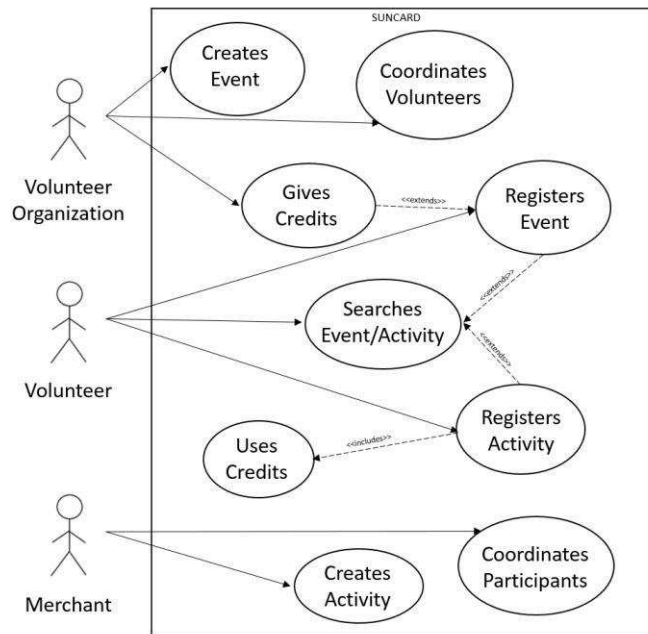


Figure 5 – Simple Use Case Diagram

Object Model: Class Diagram

The Class Diagram describes the static structure of the system in terms of objects, attributes and association. Besides, it explains the responsibilities of the system. Overall, multiple classes are elaborated to store data and use data from. The Class Diagram of the SunCard system is illustrated in Figure 6. A description of all Entities involved follows.

User

The user is the main entity of the system. It can be four different types: Merchant, Voluntary Organization, Volunteer or a Supervisor. All users have a user id, a password, and an email.

Merchant

Merchant is the entity that corresponds to the companies that make available their outdoor activities to the users of the SunCard. This entity differs from the others because it can create Offers. A Merchant has a name, an address, an IVA (tax number identifier), an assigned category, and a social wallet id.

Volunteer Organization

The Voluntary Organization is the entity that looks for volunteers and turns available their events so that users of the SunCard system can help and contribute. This entity has a list of events, a name, an address, a category, and a social wallet id.

Volunteer

The Volunteer is the entity that conducts the volunteer work. This entity can be not only the child/adolescent but also his parent(s) that perform the volunteer work for their child (for instance volunteer firefighters, between others). A Volunteer has a *name*, an *address*, and a *birthdate*.

Supervisor

The supervisor is the Administrator of the SunCard system that intervenes whenever is necessary. This entity has a name, and a social wallet id.

Offer

The Offer entity, owned by the Merchant, is available for a limited or unlimited period. It describes an outdoor or cultural related activity that a Volunteer can reserve and complete using his available credits. An offer can, at any time, be activated and deactivated by the Supervisor. An offer has a picture, a title, an owner, categories, a value (in credits), a description, a , start and ending date, and restrictions (if applies).

Event

An event is an entity that corresponds to a volunteer work event. It belongs to a Voluntary Organization, which can have one or more events available. It has a title, a picture, a description, an owner, start and ending date, as well as a number of hours, information meant to inform the Volunteer that want to take that event.

Card

A Card is a virtual entity that gives a user its status as a user of the system. A Card is attributed to a user once he registers himself on the system and pays the fees. It corresponds to the user's identification on the system SunCard. It has an owner, an expiration date, a number, and a social wallet id.

CardHolder

A CardHolder is a kid with the age between 3 and 18 years old, registered on the SunCard's system, and owns a card. A CardHolder has a name, an address, and a birthdate.

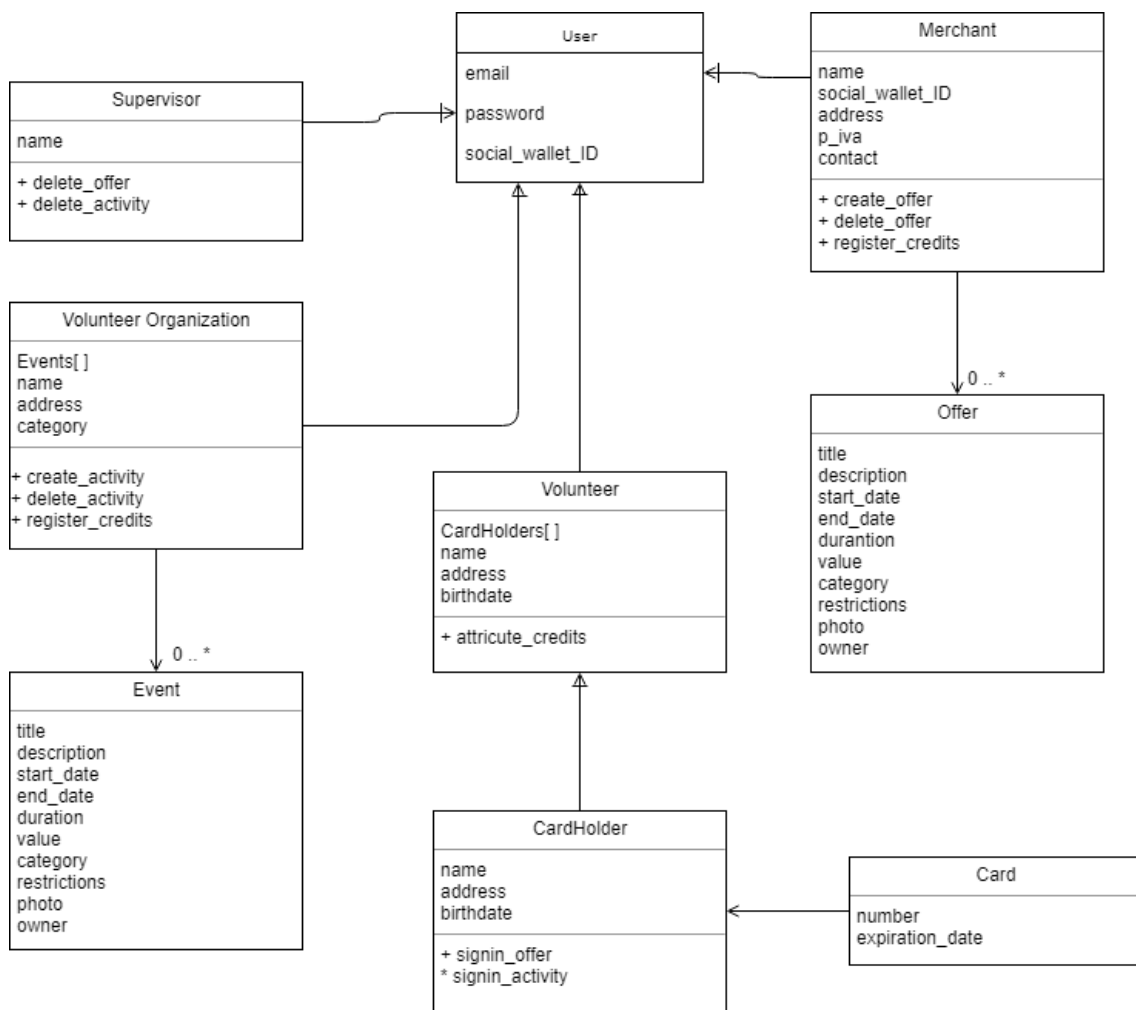


Figure 6 – Class Model Diagram

Credits Exchange

System's Flow

The idea of SunCard, as previously explained, is to take people to give and contribute to the community and while invest locally in the resources that the community has available. These two big roles go, on the one hand, to the Volunteer Organizations that need volunteers in order to conduct their activities and on the other hand, the local Merchants that offer the resources available cultural and sports activities. The functional system flow, then, intends to connect these two resources and bring them to collaborate, through the Volunteer role that both contributes and purchases these activities.

In order to control the desired flow, the entity of credits was created. This entity works like an internal virtual currency. A volunteer can receive and pay using this currency. Receiving credits after conducting a volunteering activity and later, change them for offers, advertised by the system. A description of both of these processes follows.

Acquiring Credits

Acquiring credits is the process that occurs when the volunteer concludes one Event. As previously described an Event is an entity created by a Voluntary Organisation that looks to have more volunteers helping them with their activities. When a Voluntary Organization creates an Event, SunCard volunteers can sign for it. This action allows both volunteers to be committed to the event and organization to prepare the activity.

The volunteer looks for the Offers on the website and chooses one. Once chosen, the volunteer must go to the organization where he will conduct his activity, give his user id to the organization owner that will validate the event. Only then, the credits are transferred to the volunteer (Figure 7).

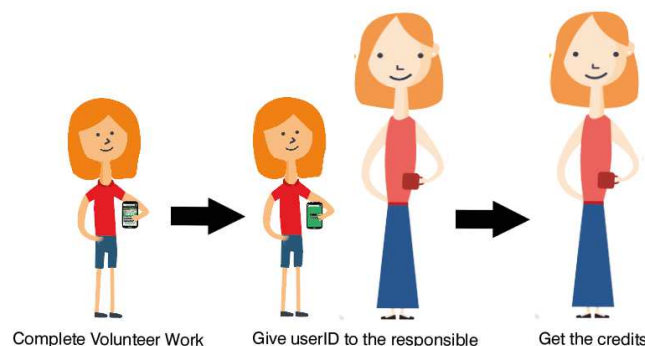


Figure 7 – Acquiring Credits Flow

In other words, using the personas previous created, Ines that decided to teach English to kids, after finishing it, meets the organizer, Martina, and provides her userID so that she can validate the prefixed amount of credits as an appreciation for her help.

Using Credits

Using credits is the process that occurs when the volunteer spends them on a certain Offer. As previously described an Offer is an entity created by a Merchant that looks to attract more people with his offered activities.

When a Merchant creates an Offer, SunCard volunteers can take it using their available credits. Once a volunteer chooses an Offer, the system checks the sufficient credits are available, if that is the case, the buy is confirmed and the volunteer receives a code. This code is the equivalent to a voucher/coupon. As the volunteer arrives at the Merchant he can just provide the code he received and enjoy the activity he has chosen (Figure 8).

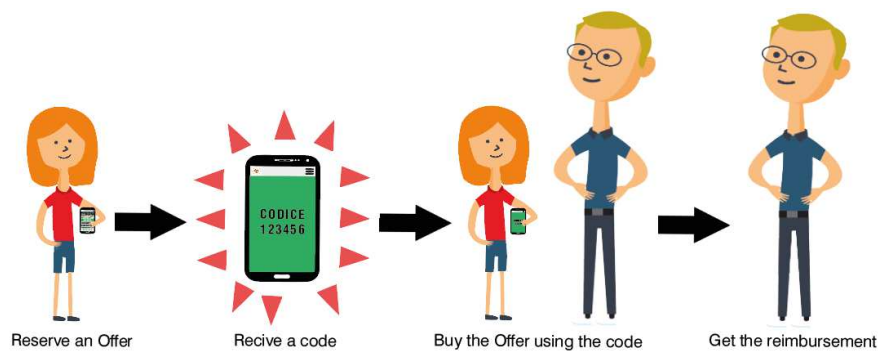


Figure 8 – Using Credits Flow

Putting it differently, Ines, decided to try Paintball. After searching for possible activities on the SunCard platform, reserves it and receives a code on her phone. When she meets the Merchant Gianluca, to whom she provides the code she received previously. Gianluca validates Ines' code and she can finally try paintball.

The process just described, is an adaptation of a similar process that has been used previously for other services. Particularly, in Portugal, YORN a mobile phone company belonging to Vodafone created a campaign (which is still valid after more than five years) offering discounted cinema tickets to all its clients. YORN's clients on Tuesdays have access to 3€ cinema tickets and 3€ popcorn in any UCI Cinemas¹². To acquire this discount, users are asked to send a text message with the word "CINEMA" to a certain mobile phone automatized number. Shortly after, they

¹² <https://www.yorn.net/yorn/parcerias/uci.html> (in portuguese)

receive another text message from the same number with a code. This code has to be given to the cinema staff when buying the ticket. As soon as this number is inserted into the Cinema's ticketing system, the discount automatically shows up. In other words, this code works as a voucher, making the discount automatically, which is exactly like the process that will be used for SunCard to keep track of the Volunteer's credits exchange flow. An easy alternative for a simple system just like SunCard's.

Besides, this code could also be an important insurance when it comes to the credits' reimbursement, reassuring the financial entities that will perform it to be sure that the Merchants are only declaring real events. Since the code that the volunteer receives is needed to get use the credits, and each code is randomly generated, this process because of a needed security.

Credits' Reimbursement

Undoubtedly, the Merchants cannot offer these activities for free to SunCard users, after all, they have the salaries of all instructors and bills to pay. The Merchants are able, at any time, to check the number of accumulated credits through the provision of discounts and ask for a reimbursement. It should be requested in Municipality, through a printed form that contains all relevant information. As soon as the refund form is done it can be requested and all pending credits are automatically included in the request.

The request must be printed and delivered in person and the Municipality starts with the process, with tools external to the application, marking the request made in the platform as "evasa". This is an important step to avoid that the same entries are reimbursed several times. Merchants, as upon agreement, will be reimbursed with 50% out of the total of all the activities acquired with the credits.

Prototyping

Benchmark

In order to understand and start ideating regarding the SunCard's platform, a Benchmark research was conducted. The elements found can be consulted on Appendix A and B. The most consulted website presented listings, such as volunteering websites, hotels, and others. From here, the fundamental elements that need to be available to the user were collected. These are:

- Availability
- Localisation
- Company's name
- Description of the work expected per activity
- Requirements (if necessary)
- Keywords
- Number of hours
- Photos
- Reviews/Ratings

Organizational Data

As a project coordinated by the municipality and involving organizations and merchants, there are precise data regarding these entities needed. When a Merchant or a Voluntary Organization decide to create an account on SunCard they have to provide officially the information required, as well as wait for approval from the System Administrator. This form is available on Appendix C (in Italian).

Designing Interfaces for Kids

When designing for kids, special conditions apply. Interface design for this target group expects different treatments, namely (Falbe, 2015):

- Buttons rather than text links. Children use buttons as the main navigation triggers;
- Use icons and images to create direct links to the content;
- Standardization is essential. Buttons and other key navigation elements should always be in the same position;
- Visual and muscle memory are fundamental. They make the interface easily understandable;
- Design for social. Creating an environment where they can communicate;

- Design for playfulness. Gamifying is the answer.

Low Fidelity Prototyping

After collecting important elements and understanding what other listing-like websites are doing and designing, the low fidelity, non-functional prototyping stage began. This prototype was developed using Balsamic Mockups. Even though the web platform will be developed for computers, it will be optimized for phones (that will be one of the most used platforms, mainly by the Volunteers). As such, the mobile prototypes will be presented (Figure 9). The complete version can be consulted in Appendix D.



Home Page



Offers/Activities Listing



Event's Page



Offer's Page



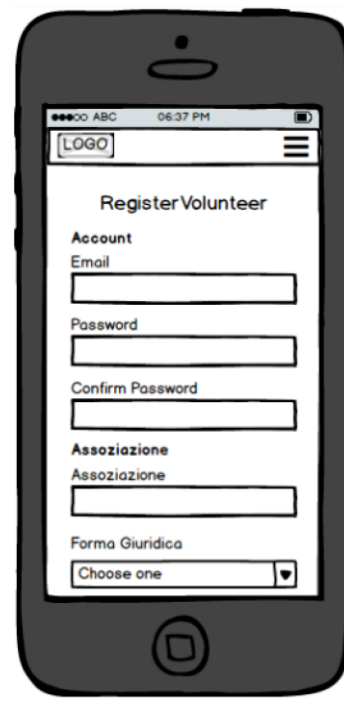
Merchants/Organization's Profile Page



Volunteer's Profile Page



Create Account Volunteer



Create Organization/Merchant Account

Figure 9 – Low Fidelity Prototype

Design Changes

The prototypes were carefully analyzed and presented to the SunCard's project responsible and changes were applied. Considering the early stages of this project, the Home Page, the “numbers” and reviews section were removed, with the thought of reusing it in more advanced stages of the project.

Additionally, the create account pages were removed, due to the fact that this experiment is organized locally, in the first part of the project it is better to invest on the flow and not on these technical details. As such, registration, both of Organizations, Merchants and Volunteers will be done in person in specified locations of the territory, and with that the respective fee payment.

High Fidelity Prototyping

Studying the Coloring

Considering that the project was already created and marketed, the already created Logo, illustrated in Figure 10, was used as inspiration for the coloring of the interface.



Figure 10 – SunCard’s Logo

As such, the main interface colors obtained, presented in Figure 11 together with their hexadecimal code, were obtained: yellow, red and green.



Figure 11 – Color Studies

Being aware of such a diverse target group influences any design choices. Considering that the interface is intended mainly for youth from 3 to 18 years old, takes another weight in the design decisions (Falbe, 2015).

Understanding the region and the meanings each color has, the chosen interface’s main color was green. This is due to its proximity to nature, life and energy, and association with meanings of growth, harmony, safety, and environment¹³. The Trentino is also known for its forests and green fields, another reason that led to this choice.

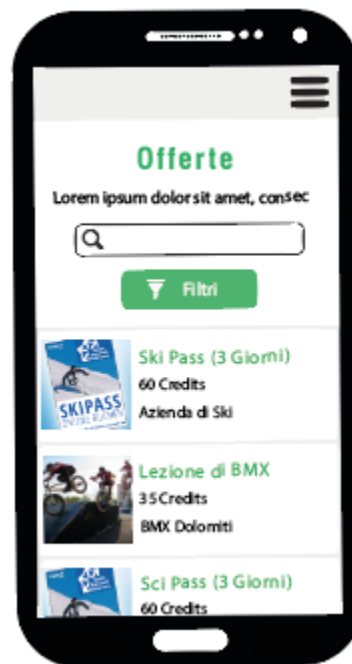
High Fidelity Prototype

After understanding the needed changes to the previously presented prototype, the High Fidelity Prototype was designed. This prototype was developed using Adobe Illustrator. For the same reason presented before, the mobile prototypes will be presented in Figure 12. The complete version can be consulted in Appendix G and H.

¹³ <https://www.bourncreative.com/meaning-of-the-color-green/>



Home Page



Offers/Events Listing



Event/Offer Description



Merchant/Organization's Page

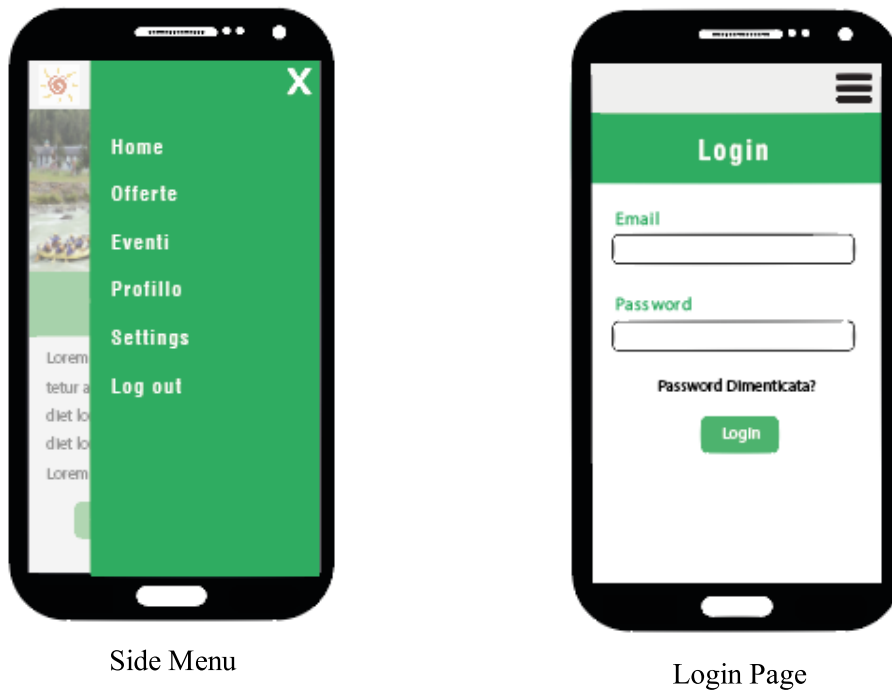


Figure 12 – High Fidelity Prototype

High Fidelity Functional Prototype

In order to increase the understanding and future testing of the prototype, a functional prototype was developed using inVision¹⁴ (Figure 12). InVision is a tool used by UX/UI Designers to design the entire product design workflow, from design to prototype, allowing collaboration simultaneously. The prototype can be tested using the following link: <https://goo.gl/tEpK9b>.

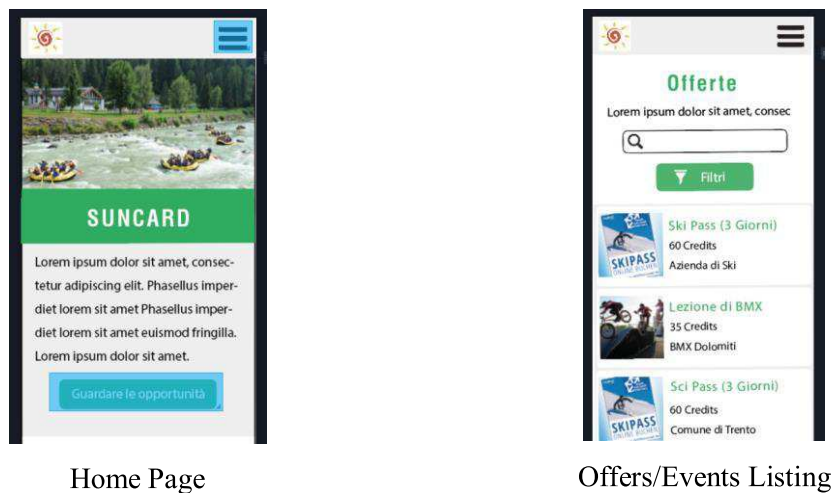


Figure 13 – Functional Prototype’s Hotspot Definition

¹⁴ <https://www.invisionapp.com/>

User Testing

User Testing are important because they are a way of understanding how will users interact with the product developed. They are a fundamental stage of the whole user-centered design process and should be done multiple times in different stages of the project. In order to test the prototype developed, a user testing was conducted. In total 12 people between the ages of 9 and 17, all students in different schools. In Figure 14, participating user’s demographics are presented.

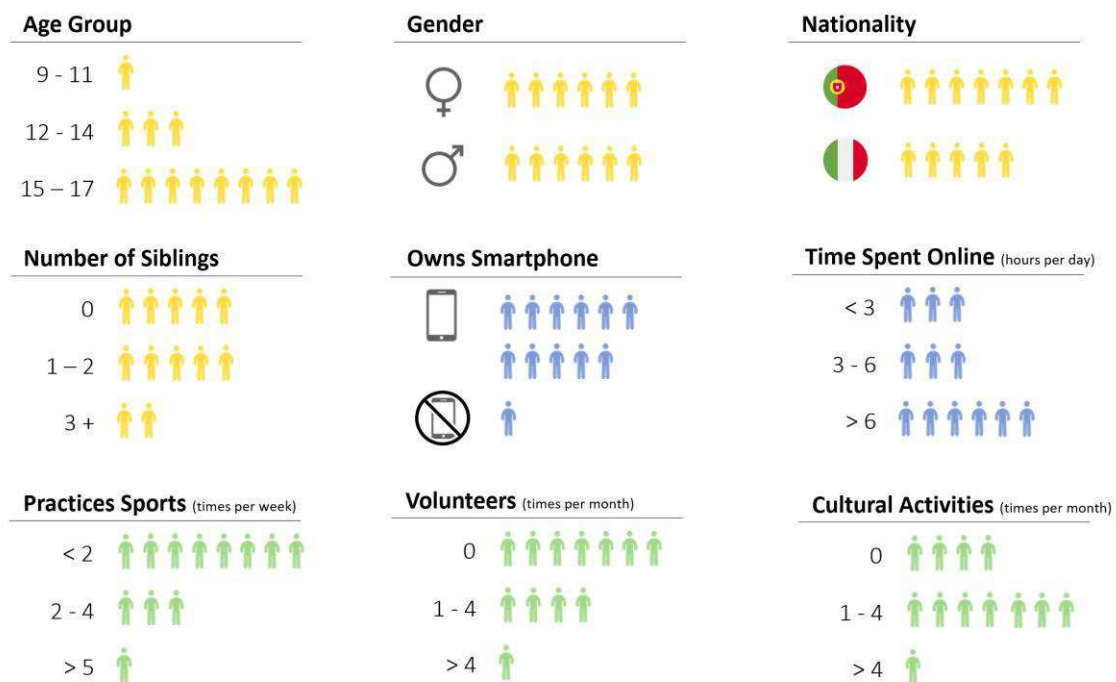


Figure 14 – User’s Demographics

There are a few interesting points to stand out. The first is that regardless of the gender, age or nationality, the interviewees spent in average 6.3h online per day (a very high value for such young participants). The second is that the majority of the participants does not participate frequently in any sports or volunteering activities, which reinforces the opportunity for this project to succeed.

Setting

The user testing started with a small introduction of the project and the objective of the testing. Since it was a user test done with minor aged users, parent consents were collected. Both the consent form and script used can be consulted in Appendix I and J.

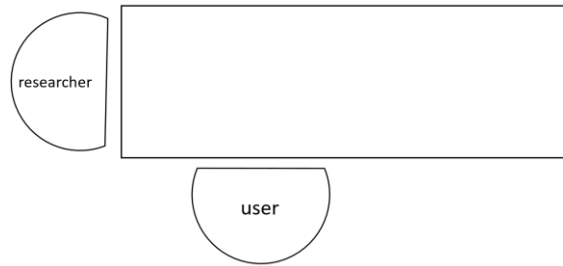


Figure 15 – Test Setting

The test was conducted in a quiet room, familiar to the user on a disposition as shown in Figure 15, using the users' smartphone. The tests took, on average, 16 minutes to complete. In Figure 16 a user test is presented.

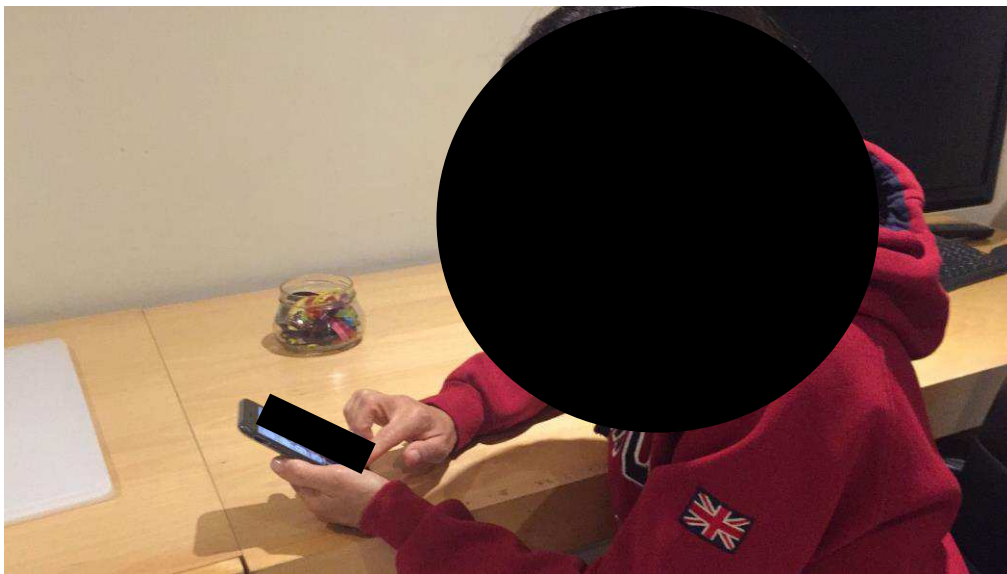


Figure 16 – User Performing a Task

The users were asked to complete the following questions/tasks:

1. Read the instructions on the home page. Can you explain me how does the system work?
2. Sign in to the paintball event. What did you think about the process? Is it easy?
3. Sign in for an activity. What did you think about the process? Is it easy?
4. Do you think you would use this website?
5. Is there something you would do differently?
6. Do you have any suggestions/ideas/comments?

Results

For each task, the number of clicks, the time, the number of errors and the overall satisfaction was collected. The results are presented bellow.

1. Read the instructions on the home page. Can you explain me how does the system work?

All users understood the concept quite well, without any need for further explanation. 70% (all over 15 years old) of the users stated that they would never read the instructions section and would just discover how it worked.

2. Sign in to the paintball event. What did you think about the process? Is it easy?

Signing in to the events was, in the overall, a simple task. Finding the list of available offers was immediate to all users and they were very excited when they received the text with the code to present to the Merchant.

Avg. Time (s)	Avg. Clicks	Avg. Errors	Satisfaction
10.2	6	0	5/5

3. Sign in for an activity. What did you think about the process? Is it easy?

Signing in to the events was a very simple task, since the process was the same as the task before. The task was slightly faster to complete then the one before but just as easy.

Avg. Time (s)	Avg. Clicks	Avg. Errors	Satisfaction
8.3	4	0	5/5

4. Do you think you would use this website?

Users were satisfied with the prototype presented and liked the overall aesthetics and disposition of the elements. 75% said that being able to use the mobile version was a very strong point and 100% said that the fact that they would be able to try new things for free was very exciting. 67% had parents that volunteered often and 42% volunteered, even though rarely, meaning that they would be able to get the credits. As such, 92% stated that they would definitely use the website.

5. Is there something you would do differently?

One of the users, suggested that having a rating system would be something important, a feature that was already predicted to implement in a future version.

6. Do you have any suggestions/ideas/comments?

Two users suggested that animations, for example when receiving the code or when entering the platform for the first time could be something that would make the platform more fun.

Interesting Quotes from the Tests

“What? Paintball for free? Where can I sign?” – User A.

“I don’t know about paintball, but my friend went horse riding the other day and I am always begging my parents to take me to do the same...” – User C.

“Wow, this code is awesome! Does it work like a secret password?” – User T.

“If they would do this in <city> I would be so happy... I would for sure have way more things to do after school” – User M.

“Can invite my friends?” – User A.

Results were exciting and encouraging towards the future of this project. Nevertheless, using the feedback received to improve the present prototype, is fundamental and a great opportunity to go according to what the users want and need. These changes will be presented in the next section.

Implementation

Landing Page

While the website is being developed, marketing actions should be put into place. As such, an advertising Landing Page, explaining the scope and functioning of the project was created (in Italian) as illustrated in Figure 17.



Il Progetto

Il progetto Suncard nasce in Val di Sole nel 2017, anche se la sua fase operativa prenderà il via nel corso del 2018. Questo progetto nasce all'interno del bando di Welfare generativo "Welfare a Km Zero" della Fondazione Caritro e Provincia Autonoma di Trento e verrà avviato su finanziamento della Fondazione Caritro e del Consiglio per le Autonomie Locali, e con risorse della Comunità della Valle di Sole, del BIM e della Rete Riserve Alto Noce.

Il progetto ha l'ambizioso obiettivo di far dialogare tra loro i soggetti classici del Welfare, il mondo del volontariato e le realtà sportive, culturali, naturalistiche e turistiche della Valle per uno scopo sociale: quello di lavorare a livello promozionale e preventivo nelle fasce d'età dell'infanzia e dell'adolescenza, promuovendo attività positive e protettive al fine di evitare l'innescarsi di percorsi di fragilità e necessità di riparazione.

Le premesse di questo progetto innovativo si trovano nelle esperienze pratiche documentate che dimostrano come lo sport e le attività culturali e naturalistiche, così come la partecipazione ad attività di volontariato, sono fattore protettivo in infanzia e adolescenza, creano inclusione, partecipazione e socialità, spezzano l'isolamento.

Il progetto Sun Card punterà su tre obiettivi:

- | | | |
|--|---|--|
| 1 | 2 | 3 |
| promozione di attività positive tra bambini e ragazzi (3-18 anni non compiuti): sportive, culturali e naturalistiche | stimolo dell'accesso al volontariato da parte dei ragazzi e delle loro famiglie | aumento dell'utilizzo delle opportunità culturali, sportive e naturalistiche della valle da parte dei residenti. |

Concretamente il progetto prevedrà l'emissione di una Card nominativa a favore dei residenti in Valle di età tra 3 e 18 anni non compiuti, con un contributo annuale di attivazione. Tale card potrà essere utilizzata da bambini e ragazzi per l'accesso alle attività sportive, culturali e naturalistiche convenzionate, mentre potrà essere ricaricata tramite lo svolgimento di attività di volontariato riconosciuta dal progetto. Il progetto prevede la collaborazione con le realtà del volontariato della Valle e con le realtà sportive, culturali e naturalistiche, oltre al coinvolgimento delle scuole del territorio.

L'attuale progetto prevede una durata di 36 mesi, ma ha un obiettivo di futura prosecuzione anche grazie all'introduzione di ulteriori canali di finanziamento, di promozione e di collaborazione.

Come Funziona



Figure 17 – Landing Page

This page can be consulted on the following link: <https://staging.suncard.it/>, implemented using Bootstrap¹⁵, a HTML, CSS and JavaScript library.

Website

The official website, still under development, it will be ready for the beginning of the academic year of 2018/2019, year in which SunCard will start working and be advertised in schools. The actual code of the application can be found under the following link: https://github.com/ict4g/suncard_rails. It is being implemented using Ruby on Rails¹⁶. Besides, an external tool that allows managing and storing transactions (as for instance the Social Wallet API) developed by Dyne.org¹⁷ has been used. Finally, it is important to mention that all the code developed is open source and available to all.

¹⁵ <https://getbootstrap.com/>

¹⁶ <https://rubyonrails.org/>

¹⁷ <https://github.com/Commonfare-net/social-wallet-api>

Future Work

The work presented in this thesis seems to have raised questions about the future and the results of this experiment. There are several lines of research arising from this work, which should be pursued.

To start, the need to collect and analyze data arising from the use of the SunCard's platform as well as to understand possible changes of its interface design and filtering options.

Secondly, taking into consideration the exponential growth of the number of users, the need to implement an "availability feature" so that organizers of both events and offers can better coordinate the volunteers. Second, implement the account creation page for the Organizations and Merchants. This implies also that there will be a need to improve the Administrator features and actions.

Thirdly, and according to the user tests conducted, a "invite friend" button could be an interesting feature to develop in order to improve, not only the social aspect, but also to encourage the users to participate and use the platform.

Additionally, future versions of the interface should invest of the social and gamifying aspect of the system, previously mentioned as an important aspect of an interface designed for children, with the aim of making it more attractive and encourage its users to share their experiences and others to participate also. These aspects could come from an award system (i.e. gold medal when reaching 20 offers, leaderboards...) or from share and invite friend features.

Last but not the least, if the experiment survives the initial period, a deep study on the impact of this initiative on the community throughout the years should be conducted and published in order to encourage other policymakers to adopt it in their communities.

Conclusion

Previously, the following research question was asked: “How can digital technology encourage cultural change and positive behaviors?” This thesis approached this question using the project SunCard as a reference. The research conducted regarding the fundamental aspects that encouraged this project lead to the belief that it will be very successful and well seen in the community of Val di Sole.

According to literature, initiatives like this, shape communities and over the years may make significant changes in the core values of the community. Remembering the case of Denmark, presented previously, one can understand that to those kids afterschool extracurricular activities are something completely natural in their daily life and development. In fact, they score always in the top places in the World Happiness Reports¹⁸.

Practically, the development of this interface was a very interesting challenge, pushing for the knowledge acquired in the past two years regarding the design process, which will prove to be fundamental professionally. The feedback regarding the interface was enthusiastic both from peers as well as the responsible of this initiative. Nevertheless, thorough user testing is still needed to understand in full length the correctness of the interface designed. Nothing rests but to wait for the results of this experiment.

As such, and as a reply to the research question, the challenge imposed to societies and local communities, to discover new resources (and generate them locally), requires the participation not only of the policymakers but also of the citizens. The adoption of Generative Welfare strategies in a community is complex and requires a gradual approach. This is due to the fact that it implies changing the way in which the different actors intervene and cultural and societal behaviors, something that does not happen from a day to the other nor can it be imposed. It can only be achieved through mutual persuasion. Even though it might be too soon to have concrete results in order to establish objective conclusions, literature and the research developed strongly support the belief that indeed digital technologies can be a motor in cultural change and a big influencer into the adoption of positive behaviors.

¹⁸ <http://worldhappiness.report/ed/2018/>

References

- Alfgeir Logi Kristjansson, J. E. (2010). Adolescent substance use, parental monitoring, and leisure-time activities: 12-year outcomes of primary prevention in Iceland. *Preventive Medicine*, 168-171.
- Anderson, S. (2008). Civil sociality: Children, sport, and cultural policy in Denmark. *IAP*.
- Benard, B. (1993). Fostering Resiliency in Kids. *Character Education*, 44-48.
- Blum, R. W. (2002). Improving the odds: The untapped power of schools to improve the health of teens. *Center for Adolescent Health and Development*.
- Canali, C. &. (2014). Lavorare con i genitori negli spazi di vita dei bambini e riconoscere i livelli di esito.
- Cinzia Canali, T. V. (2016). A generative welfare is needed for shaping the new welfare. *XIV International Conference EUSARF 2016: Shaping the Future*.
- Constantine, L. L. (2001). Structure and style in use cases for user interface design. *Object modeling and user interface design*, 245-280.
- Falbe, T. (2015). Designing Web Interfaces For Kids. *Smashing Magazine*.
- Ghai, Y. &. (2013). Practising Self-Government. A Comparative Study of Autonomous Regions. *Cambridge University Press*.
- Inga Dora Sigfusdottir, A. L. (2011). Substance use prevention through school and community - based health promotion: a transdisciplinary approach from Iceland. *Global Health Promotion*, 23-26.
- Koepfler, J. (2016). Connecting Children With Nature Through Smart Toy Design. *Smashing Magazine*.
- Kristjansson, A. S. (2008). Social correlates of cigarette smoking among Icelandic adolescents: a population-based cross-sectional study. *MC Public Health*, 86.
- O'Connor, S. (2011). Getting involved, doing well, feeling connected: How participation in community activities relates to positive developmental outcomes in a culturally diverse sample of young New Zealanders.
- Pampel, F. (2000). Logistic regression: a primer. *Sage Publications*.
- Rossi, E. (2016). Welfare generativo per la cura dei beni comuni. *Labsus*.
- Spaaij, R. (2011). Building social and cultural capital among young people in disadvantaged communities: lessons from a Brazilian sport-based intervention program. *Sport, Education and Society*, 77-95.
- Vecchiato, T. (2015). Poverty in Italy and generative welfare approach. *Theoretical and Empirical Insights into Child and Family Poverty*, 185-200.
- Zancan, F. E. (2013). Verso un welfare generativo, da costo a investimento. *Studi Zancan*, 5-14.

Appendix

A - Benchmark

Main International Volunteering Entities:

- <https://www.unv.org/become-volunteer/>
- <http://aiesec.pt/global-volunteer/>
- <https://www.worldwildlife.org/>
- <http://www.ecovolunteer.org/>
- <https://www.volunteermatch.org/>
- <https://www.workaway.info/>

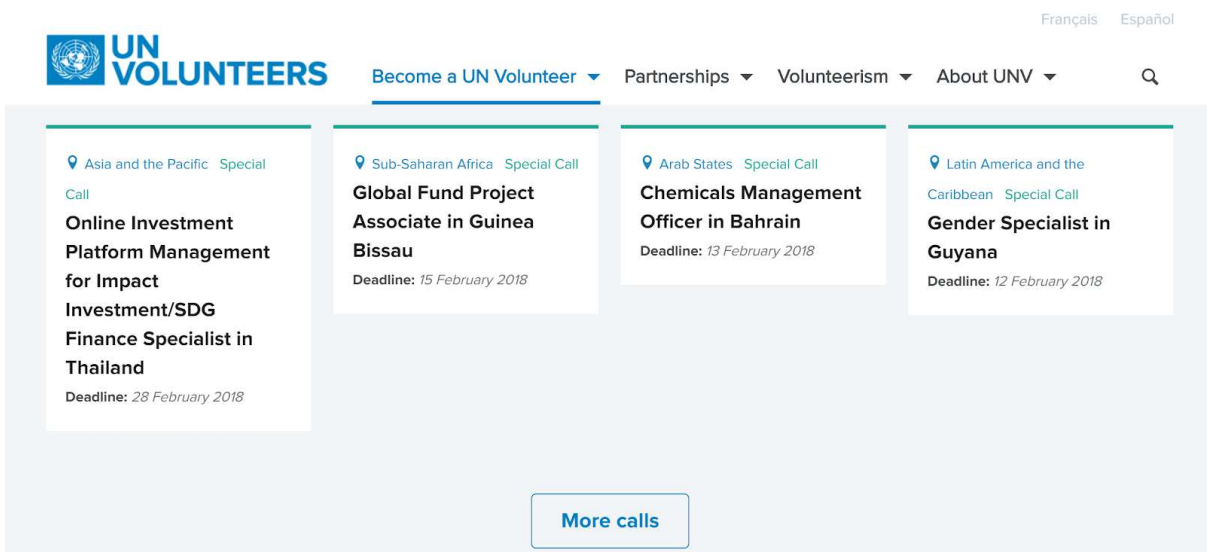
Local Trentino Volunteering Entities:

- <http://www.volontariatotrentino.it/>
- <http://www.trentinosolidarieta.it/>
- <http://www.serviziocivile.provincia.tn.it/>
- <http://banchetempo.tn.it/>

Similar Websites:

- <https://www.linkedin.com/>
- <https://www.blablacar.it/>
- <https://www.airbnb.it/>

Listing Benchmark



The screenshot shows the UN Volunteers website interface. At the top right, there are language options for 'Français' and 'Español'. The main navigation bar includes the UN logo, the text 'UN VOLUNTEERS', and several menu items: 'Become a UN Volunteer', 'Partnerships', 'Volunteerism', and 'About UNV'. A search icon is also present. Below the navigation bar, there are four cards representing different volunteer opportunities:

- Asia and the Pacific Special Call:** Online Investment Platform Management for Impact Investment/SDG Finance Specialist in Thailand. Deadline: 28 February 2018.
- Sub-Saharan Africa Special Call:** Global Fund Project Associate in Guinea Bissau. Deadline: 15 February 2018.
- Arab States Special Call:** Chemicals Management Officer in Bahrain. Deadline: 13 February 2018.
- Latin America and the Caribbean Special Call:** Gender Specialist in Guyana. Deadline: 12 February 2018.

At the bottom of the listing area, there is a button labeled 'More calls'.

<https://www.unv.org/become-volunteer/volunteer-abroad>

5 Results

Online Investment Platform Management for Impact Investment/SDG Finance Specialist in Thailand

Asia and the Pacific

Special calls

UNV Assignment Title Online Investment Platform Management for Impact Investment/SDG Finance Specialist Type of...

28 February 2018

SDG 3: Good health and well-being

Global Fund Project Associate in Guinea Bissau

Sub-Saharan Africa

Special calls

UNV Assignment Title Global Fund Project Associate Type of Assignment International UN Volunteer UNV Focus...

15 February 2018

SDG 16: Peace, justice and strong institutions

Chemicals Management Officer in Bahrain







Arab States

Special calls

UNV Assignment Title Chemicals Management Officer Type of Assignment International UN Volunteer UNV Focus Area...

13 February 2018

<https://www.unv.org/search>

 <p>GLOBAL VOLUNTEER</p> <p>Teaching English To Adults for Quality Education</p> <p>AIESEC Assiut</p> <p>LOCATION: Al Hamraa Ath Thaneyah Egypt</p> <p>DURATION: 6 Weeks</p>	 <p>GLOBAL VOLUNTEER</p> <p>Promoting Tourism Explore Egypt</p> <p>AIESEC Assiut</p> <p>LOCATION: Qesm Al Wahat Al Khargah Egypt</p> <p>DURATION: 6 Weeks</p>	 <p>GLOBAL VOLUNTEER</p> <p>HealthCare: Obstetrics & Gynaecology Internship EGYPT</p> <p>AIESEC Assiut</p> <p>LOCATION: Gazirat Bahig Egypt</p> <p>DURATION: 6 Weeks</p>
 <p>GLOBAL VOLUNTEER</p> <p>Medical: Obstetrics and Gynaecology student Internship EGYPT</p> <p>AIESEC Assiut</p> <p>LOCATION: Al Hamraa Ath Thaneyah Egypt</p> <p>DURATION: 6 Weeks</p>	 <p>GLOBAL VOLUNTEER</p> <p>Promoting Tourism Explore Egypt</p> <p>AIESEC Assiut</p> <p>LOCATION: Gazirat Bahig Egypt</p> <p>DURATION: 6 Weeks</p>	 <p>GLOBAL VOLUNTEER</p> <p>EXPLORE EGYPT (12 Cities) fully Covered</p> <p>BENISUEF (BSU) AIESEC IN BNS</p> <p>LOCATION: Egypt</p> <p>DURATION: 6 Weeks</p>

<https://aiesec.org/search?type=1>

♥ SAVE

Affordable Volunteer Abroad Programs: from USD 10 per day ★

International Volunteer HQ (IVHQ) is the world's leading volunteer travel organization, providing affordable, safe and responsible volunteer programs in over 40 different destinations around the world. With program fees starting from just USD 10 per day, IVHQ is the volunteer...

625 REVIEWS






INTERNATIONAL VOLUNTEER HQ
www.volunteerhq.org

♥ SAVE

Conservation, Community and Adventure Placements from \$255 ✓✓✓

With more than 400 projects worldwide and with 25 years experience of providing ethical travel placements, Frontier can find you the perfect adventure whatever you want to achieve. We offer placements in more than 50 countries including Costa Rica, Madagascar,...

531 REVIEWS

<https://www.goabroad.com/volunteer-abroad>

Titolo	↑↓	Data	↓↑	Tipologia	↑↓
Affetti speciali: un percorso in-formativo sull'accoglienza familiare		24/01/2018		Avviso	
Sportello "Affetti Speciali:" un'esperienza concreta di solidarietà		29/09/2016		Iniziativa	
Giornata del volontariato a Povo		18/03/2015		Iniziativa	
Progetto P.I.A. - Persone Insieme per gli Anziani		04/07/2014		Iniziativa	
Cittadinanza attiva		05/03/2013		Pagina	
Come costituire una nuova associazione		16/06/2011		Scheda Informativa	
Spazio compiti "Abracadabra... giocando con i compiti"		09/03/2009		Iniziativa	

<http://www.comune.trento.it/Comune/Nei-panni-del-cittadino/Mi-interessa/Donare-il-proprio-tempo/Fare-il-volontario>

Progetti

In questa sezione è pubblicata mensilmente la lista dei progetti disponibili alla candidatura. Per ciascun progetto trovi la scheda riassuntiva e le informazioni relative all'ente proponente. Una volta scelto il progetto (uno solo!), clicca [qui](#) per sapere come candidarti.

Progetti da scegliere tra:



AMBIENTE

progetti dedicati alla valorizzazione, sostenibilità ambientale e bene comune, o manutenzione del territorio.



ANIMAZIONE

progetti dedicati alla realizzazione di attività ludico-ricreative, o promozione di attività sportive/motorie.



ASSISTENZA

progetti riguardanti attività di cura, riabilitazione e gestione del tempo libero di soggetti in situazioni di necessità o fragilità psichica, emotiva o fisica.



COMUNICAZIONE E TECNOLOGIE

progetti che prevedono l'uso della tecnologia o a fini comunicativi/promozionali, o per la gestione di sistemi informativi o supporto organizzativo.



CULTURA

progetti sulla valorizzazione del patrimonio culturale, storico, scientifico, artistico (es. musei, biblioteche, teatri).



EDUCAZIONE E FORMAZIONE

progetti di supporto alla pianificazione e realizzazione di interventi educativi-formativi per diverse tipologie di destinatari.



SCUOLA E UNIVERSITÀ

progetti proposti da scuole o università.

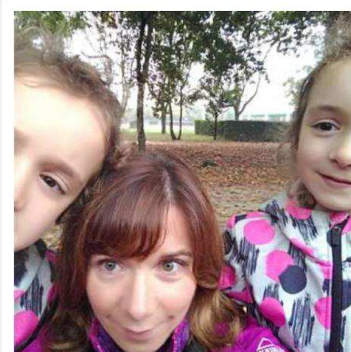
<http://www.serviziocivile.provincia.tn.it/progetti/>

Be part of our small family in South Tyrol / Italy,

Country: Italy

Convival in South Tyrol / Italy, in the valley, between the Alps. A magical and mystical environment of dual culture, bilingualism and gastronomy varies. Our family is looking for a good girl between 20 and 30 years for daily help. Sn a single

Add to my host list



More

Contact

Register

<https://www.workaway.info/hostlist-IT.html?Page=2®ion=trentino-alto-adige-suedtirol>

Filtering

FULLTEXT SEARCH



ADVANCED SEARCH ^

Type of content

Special calls x

News x

All types v

Region

Sub-Saharan Africa x

Worldwide v

SDG

SDG 2: Zero hunger x

All goals v

Publications only

Sort by

Publication date

Publication date v

Refine search results

RESET ALL FILTERS

<https://www.unv.org/search>

The screenshot shows the AIESEC.org website for an opportunity titled "EXPLORE EGYPT (12 Cities) fully Covered". The page features a large image of the Great Pyramids of Giza. Key elements include: a navigation bar with "PARA ORGANIZAÇÕES", "Ajuda", "Explorar", and "Regista-te"; a main heading "EXPLORE EGYPT (12 Cities) fully Covered" with a location pin for "Egypt" and a button "Inicia Sessão para te candidatares"; a sub-heading "76 days left to apply"; a sidebar with "Informações gerais", "Pré-requisitos", "Visão e logística", and "Testimonials"; a "VOLUNTÁRIO GLOBAL" logo; and a table with details: "IDIOMA: Inglês", "EARLIEST START DATE: 1 May 2018", "LATEST END DATE: 13 Jun 2018", "DURAÇÃO: 6 Semanas", "SALÁRIO: Não remunerado", "POSIÇÕES: 50", and "TAXA: Por favor inicia sessão para ver o preço". A button "Inicia Sessão para te candidatares" and "76 days left to apply" are also present in the sidebar.

<https://aiesec.org/opportunity/903108>

The screenshot shows the search filters on the AIESEC.org website. It includes a search bar with a magnifying glass icon. Below the search bar are three filter boxes: "Where: Anywhere", "When: Qualquer momento", and "Product: Any Product". A "More Filters" link is visible. Below this are several filter categories: "Languages", "Skills", "Backgrounds", "Study Levels", and "SDG Goals". A "Type a Skill" input field contains "ABAP" with a close button. Below this are two checkboxes: "Food Covered" (checked) and "Accommodation Covered" (unchecked). At the bottom, there are three filter boxes: "Backgrounds: Agriculture", "Skills: ABAP", and "Product: Global Volunteer".

<https://aiesec.org/search>


search
volunteering projects


your country ▾ ?


project country ▾ ?


All projects ▾ ?


project topics ▾ ?


starts after  ?

ends before  ?


 clear search

 find projects

 advanced search ?

 search for EVS accredited organisations ?

https://europa.eu/youth/volunteering_en

MORE SEARCH OPTIONS 

Further options | Availability | Types of help

Number of Workawayers accepted:

Any ▾

Host rating

Any ▾

Internet access

Smoker

Pets

Can host families

Only hosts not asking for a fee

Any

Family

Individual

Community

NGO

House sitting

Business

School

Farm

Hostel

Boat

Sustainable project

Animal welfare

Other

<https://www.workaway.info/hostlist.html>

Opening Description

Français Español

UN VOLUNTEERS Become a UN Volunteer ▾ Partnerships ▾ Volunteerism ▾ About UNV ▾ Q

Deadline: 15 February 2018 PDF Print



UNV Assignment Title	Global Fund Project Associate
Type of Assignment	International UN Volunteer
UNV Focus Area	Securing access to basic social services
Host agency	United Nations Development Programme
Duration	12 months
Location, Country	Bissau, Guinea Bissau
Expected Starting Date	Immediate

[UNV Global Fund Project Associate in Guinea Bissau](#)

<https://www.unv.org/become-volunteer/volunteer-abroad>

GoAbroad.com WRITE A REVIEW PROGRAM TYPES ▾ HELP ME PICK A PROGRAM LOG IN

Home / International Volunteer HQ / Affordable Volunteer Abroad Programs: from USD 10 per day

[VISIT WEBSITE](#) [APPLY NOW](#) [INQUIRE HERE](#)

Affordable Volunteer Abroad Programs: from USD 10 per day

If you ever thought about doing anything related to volunteering at home or abroad all I can say is JUST GO FOR IT! It was an amazing experience. I met so many interesting people, both local... — Katka M

Program Summary

International Volunteer HQ (IVHQ) is the world's leading volunteer travel organization, providing affordable, safe and responsible volunteer programs in over 40 different destinations around the world.

With program fees starting from just USD 10 per day, IVHQ is



This program is provided by



9.6

OVERALL RATING

[READ 316 REVIEWS](#)

<https://www.goabroad.com/providers/international-volunteer-hq/programs/affordable-volunteer-abroad-programs-from-usd-10-per-day-60389>

Rarotonga is a small island – just 26 miles around – so you become acquainted with the local people quickly while serving in one of the most beautiful places on Earth! As a volunteer in the Cook Islands, you're assigned to essential projects through the Ministries of Health, Agriculture and Education. We've offered help to more than 80 local organizations since 1988 in the areas of education, health and social services. Review a standard volunteer work schedule.



FAQs: How to Volunteer in the Cook Islands

[Dates & Contribution](#) |
 [Team Leaders](#) |
 [Arrival & Departure](#) |
 [Health & Safety](#) |
 [Free Time](#) |
 [Family Opportunities](#) |
 [Group Opportunities](#)

Your program contribution is tax-deductible, provided you follow our itinerary. Select program options below to see upcoming service program dates to volunteer in the Cook Islands. Then select a program date to hold your place on a team with your \$350 deposit. Call a volunteer coordinator at (800) 487-1074 for help if needed. If you prefer, you may print a text application and submit it by mail or fax. Minors – under age 18 – must complete a minor application and travel with a parent or adult legal guardian.

Most partner community lodging is double-occupancy, with a single room option for an additional fee. **Click for single room fees** in countries where this option is available.

Upcoming Volunteer Dates in Rarotonga, Cook Islands

Choose Program Duration: 12 Choose Year: 2018

Volunteer in the Cook Islands: Service Program Snapshot

1, 2, 3 weeks year-round

Contribution:
\$2,262* – \$3,095

** with qualifying discounts.*

Projects include:
Teaching, Labor, Health Care

Local time:
1:16:17 am

[Request Information](#)
[Register Now](#)
[View Program Grid](#)

<https://globalvolunteers.org/cook-islands/>

Join our mountain rifugio with a wonderful view on Garda Lake and Riva del Garda, Tenno, Italy

Italy new host

Host rating Not yet rated

Feedback

Last Activity 14/02/2018

N° of Facebook friends 1472

Reply rate 100.0 %

Average reply time: within 3 days

[Add to my host list](#) [Contact](#) [Register](#)



♥ Favourited 11 times

MAP

AVAILABILITY

2018

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

[show 2019](#) What's this?

DETAILS



Description

A mid-mountain rifugio with a wonderful view on Garda Lake and Riva del Garda. It's easy to reach with just 30 minutes of drive from Riva del Garda and 10 from Tenno Lake. Andrea took over this activity a couple of years ago after travelling for some time across Australia and Asia and now runs it with a team that works in great harmony

Seasonal help at holiday rental villa in Umbria, Italy

Come experience an organic lifestyle of Sardinia at a farm and B and B.

Help in my garden and with carpentry in Sardinia, Italy

<https://www.workaway.info/177892516186-en.html>

B - Mobile Design

Esplora Airbnb



Case Esperienze

Esperienze che adorano i viaggiatori

Prenota attività gestite da host del luogo per il tuo prossimo viaggio



LEZIONI DI BALLO - ...
Learn salsa at a rooftop studio

CORSO SUI DESSERT...
Prepare ice cream rolls wit...

<https://www.airbnb.it/>



More Contact Register

Looking for someone who can speak/help in german or english with our kids in Bressanone, Italy

Country: Italy
Feedback: 3

updated

We are a family of 4, parents and 2 kids, with 8 and 6, but in short they will be 9 and 7. We are interested in someone who could speaks with us and especially with the kids in german (or english, but preferred is german) We lived in Bressanone, in

Add to my host list

<https://www.workaway.info/>

The following IVPA members have programs that match your search criteria:




AMERICAN YOUTH UNDERSTANDING DIABETES ABROAD (AYUDA)



AMIGOS DE LAS AMERICAS

<http://volunteerinternational.org/>

A Explorar




ACE Program - Spanish-English Technical Translator [4135]

Tata Consultancy Services Ltd.

LOCALIZAÇÃO: Chennai, India


DURAÇÃO: 52 Semanas




<https://aiesec.org/search>


C - Create Account Form

Progetto realizzato con il contributo di

 FONDAZIONE CARITRO
CASA DI RISPARMIO DI TRENTO E ROVERETO

 PROVINCIA AUTONOMA DI TRENTO


 Consiglio delle autonomie locali della provincia di Trento

 FONDAZIONE FRANCO DEMARCHI
IL SOCIALE COMPETENTE

In collaborazione con

 Consorzio della VALLE DI SOLE

 Rete di Risparmio Alto Adige

 APPM PROGETTO GIOVANE VALLE DI SOLE

 PROGETTO 2 cooperativa sociale

RICHIESTA DI ADESIONE AL PROGETTO "SUN CARD"

ASSOCIAZIONE/SOCIETA': _____

FORMA GIURIDICA (non vincolante): _____

RESPONSABILE LEGALE/PRESIDENTE: _____

REFERENTE per SUN CARD

Nome e Cognome _____

Telefono _____ E-mail: _____

PRINCIPALI ATTIVITÀ SVOLTE: _____

IL POSSESSORE DI SUNCARD POTRÀ SVOLGERE LE SEGUENTI ATTIVITÀ ORGANIZZATE DALL'ESERCENTE: _____

PERIODO DI SVOLGIMENTO DELL'ATTIVITA': _____

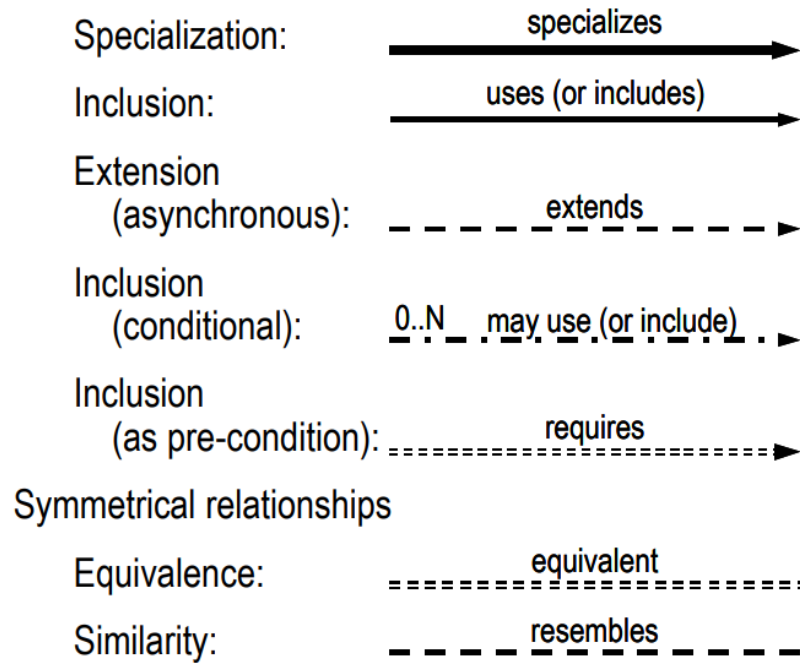
RESTRIZIONI D'ETA': _____

L'esercente si impegna a:

- aderire al regolamento del Progetto Sun Card
- registrare correttamente la presenza degli utenti
- rendicontare ogni semestre la somma da liquidare alla vostra associazione/società

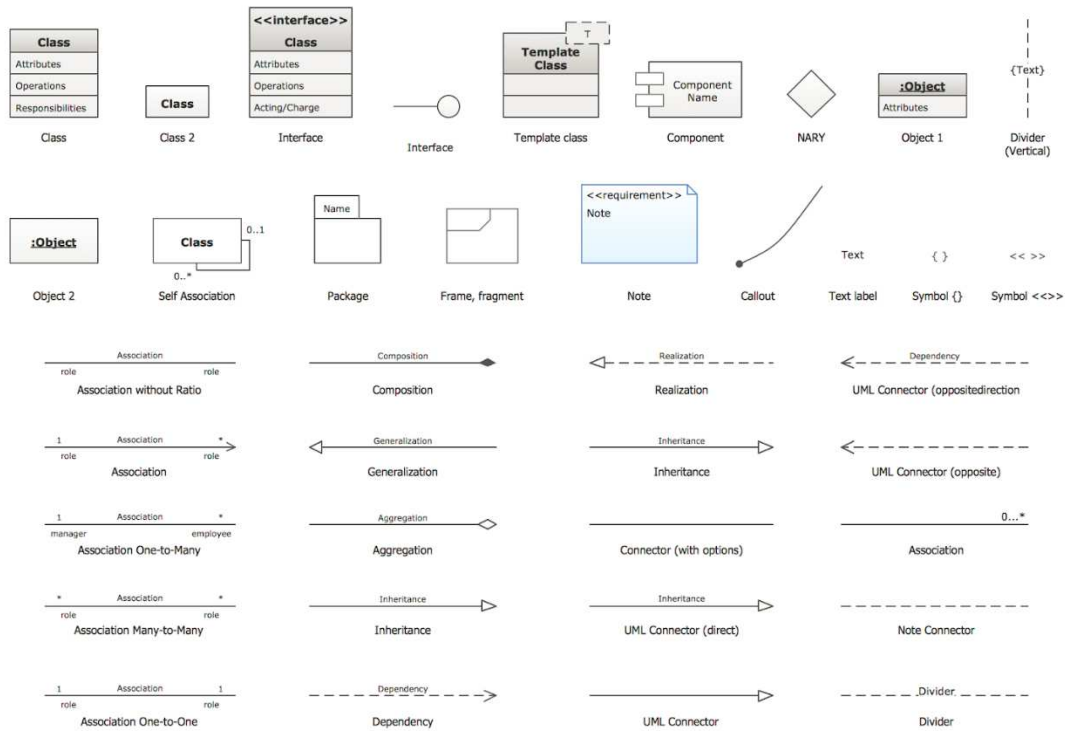
Luogo e data _____ Firma _____

D – Use Case Diagram

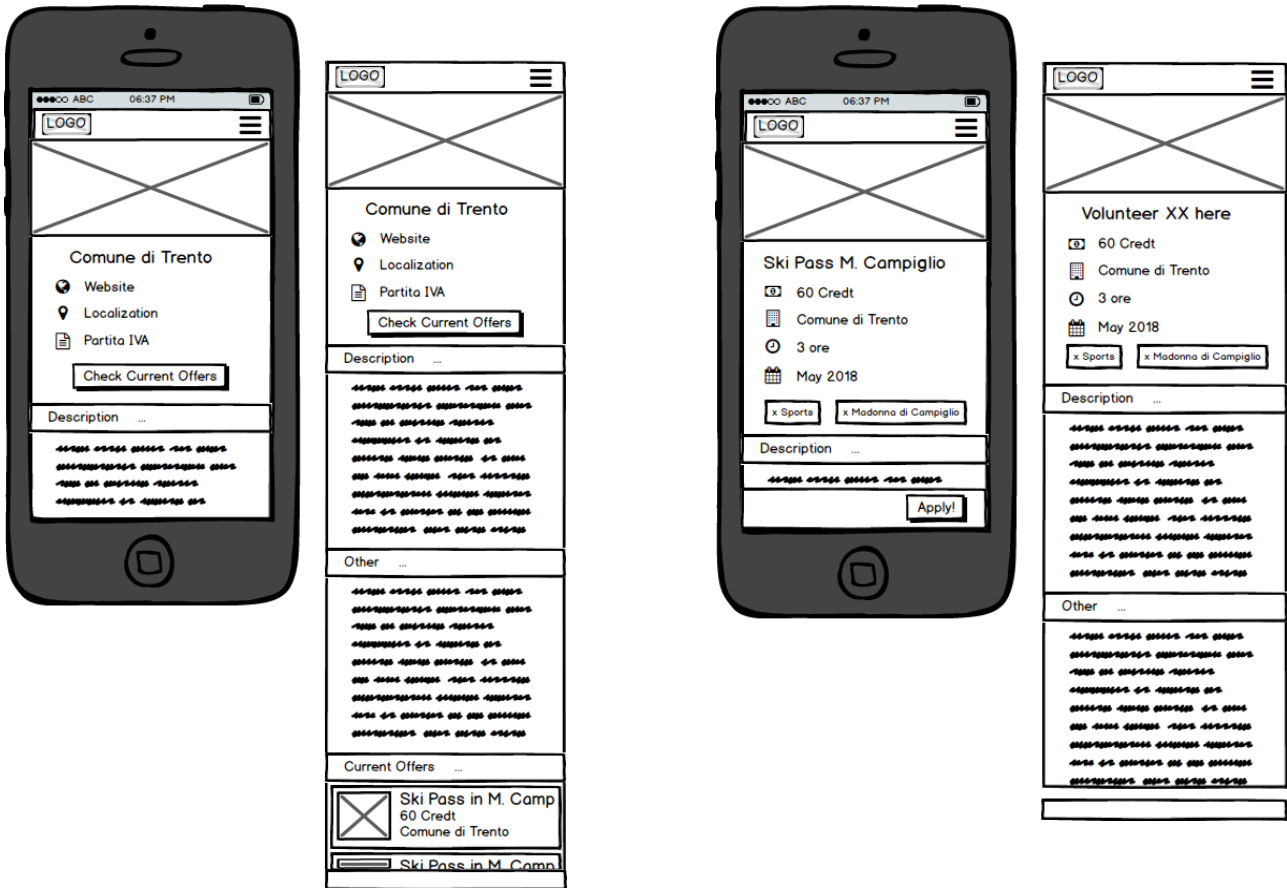


(Constantine, 2001)

E – Class Model Diagram

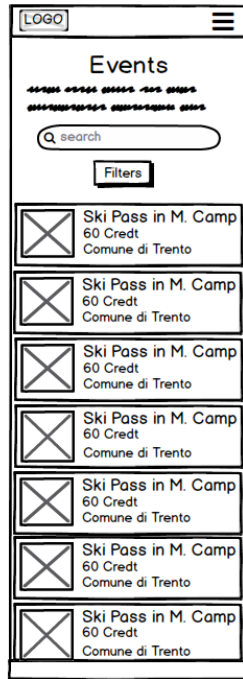


F – Final Low Fidelity Prototype

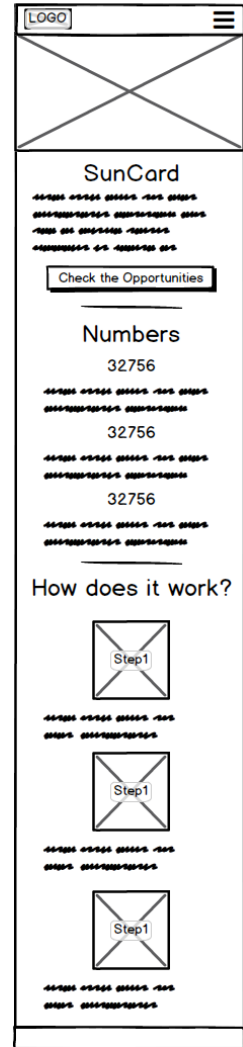
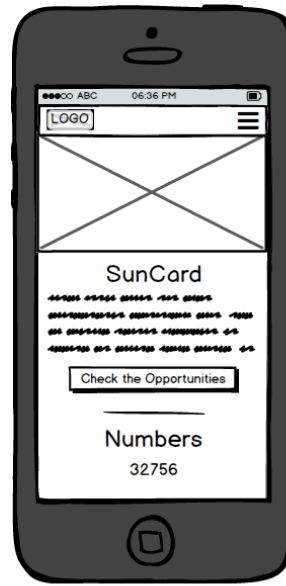


Merchant/Organization's Profile Page

Event's Page



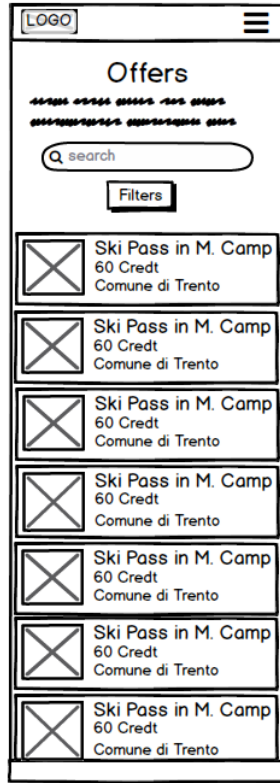
Event's Listing Page



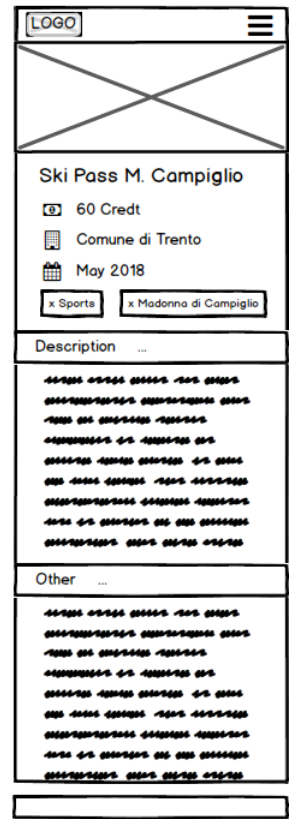
Home Page



Offer's Listing Page

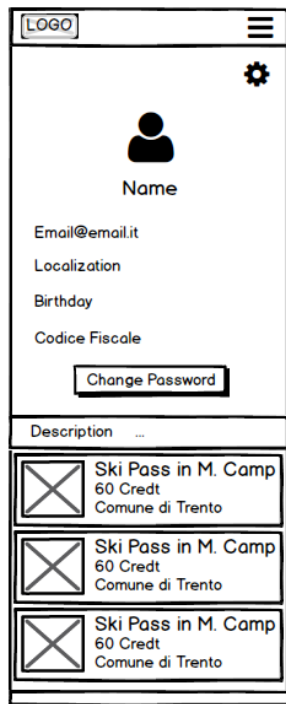


Offer's Page

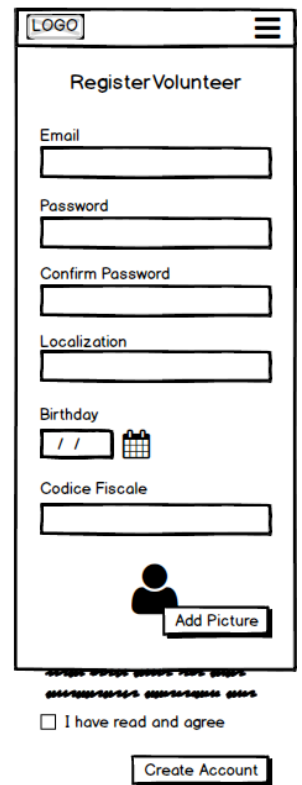




Volunteer's Profile Page



Volunteer's Create Account Page





Filters ✕

Location ▼

Category ▼

Age

Number of Credits

x Sports x 20 - 500 Credit

x Madonna di Campiglio x Trento

Filters ✕

Localization >

Category >

Age >

Number of Credits >

Filters - Localization

Area 1

Area 2

Area 3

Area 4

Filters ✕

Localization

- Area 1

- Area 2

- Area 3

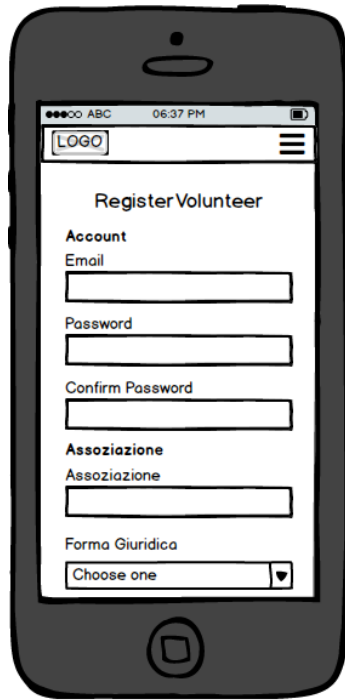
- Area 4

Category

Age

Number of credits

Listing Filtering Study



LOGO
☰

Register Company

Account

Email

Password

Confirm Password

Assoiazione

Assoiazione

Forma Giuridica

Responsabile Legale

Descrizione

Sito

Contato

Referente per SunCard

Nome e Cognome

Same as before

Telefono

E-mail

Attività

Descrizione

Condizioni

Periodo di Svolgimento

Tags

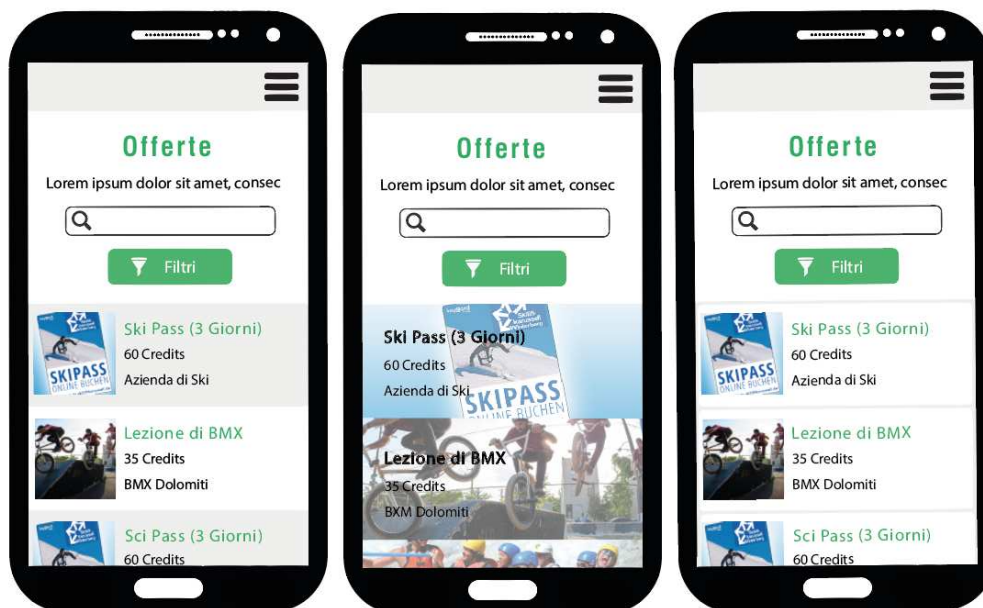
I have read and agree

Organization/Merchant's Create Account Page

G - High Fidelity Prototype Studies



Title Testing



Listing Testing (Structure)



Comune di Trento

-  60 Credits
-  Azienda di Ski
-  Marzo 2018

Offerte

Descrizione

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus imperdiet lorem sit amet Phasellus .Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus imperdiet lorem sit amet Phasellus.

Altre Informazioni

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus imperdiet lorem sit amet Phasellus .Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus imperdiet lorem sit amet Phasellus.

Offerte

Ski Pass (3 Giorni)

60 Credits

Azienda di Ski



Lezione di BMX

35 Credits





Babysitting

-  30 Credits
-  Casa di Matilde
-  Marzo 2018

Sport
Ski

Descrizione

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus imperdiet lorem sit amet Phasellus .Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus imperdiet lorem sit amet Phasellus.

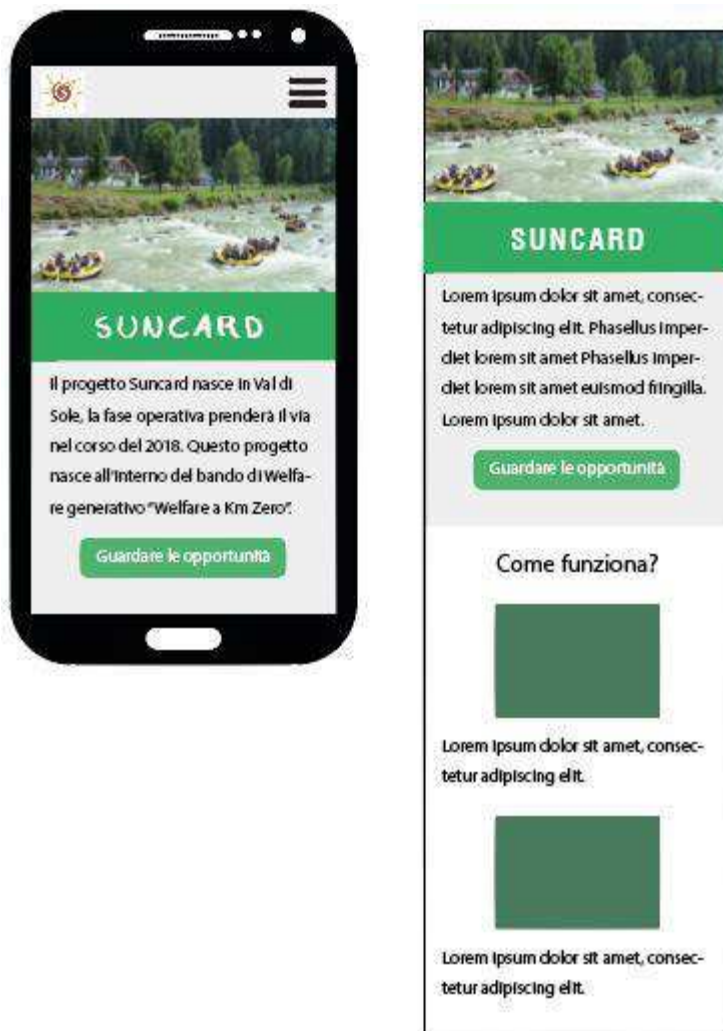
Altre Informazioni

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus imperdiet lorem sit amet Phasellus .Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus imperdiet lorem sit amet Phasellus.

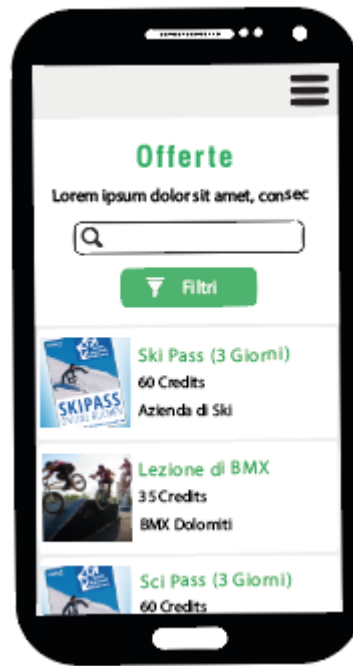
Prendere!

Description Testing (Color)

H – Final High Fidelity Prototype



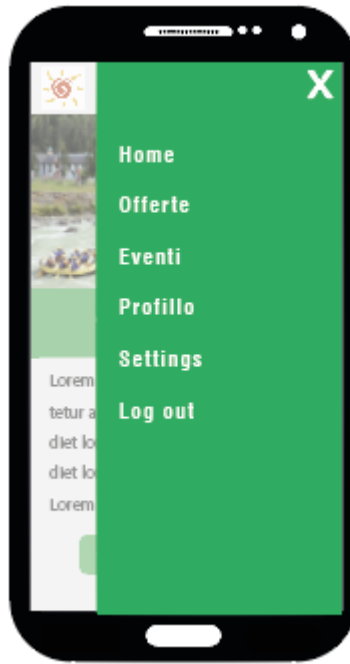
Home Page



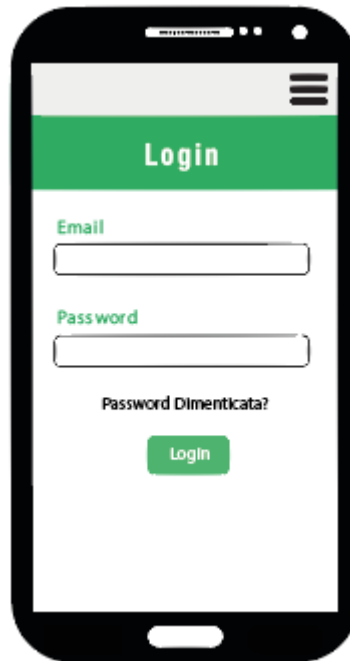
Listing



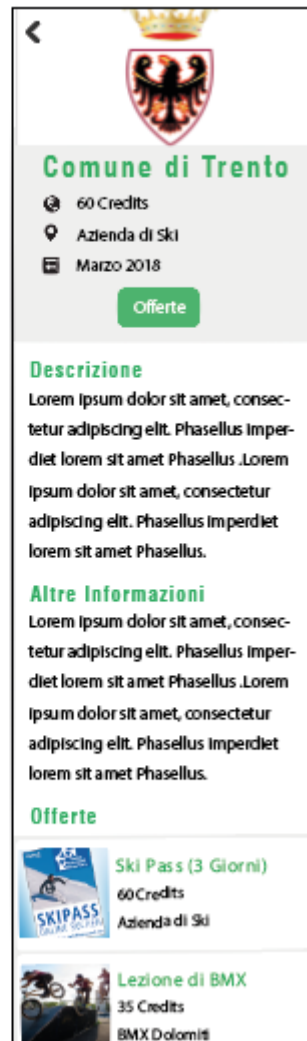
Event/Offer Description Page



Side Menu



Login Page



Merchant/Organization's Page

I – User Testing Consent Form

Consent Form (Minor)

I agree to allow my child _____, to participate in the usability study conducted by Teresa Santos Coelho for the project SunCard.

I understand that participation in this usability study is voluntary and I agree to immediately raise any concerns or areas of discomfort my child or I might have with the study administrator.

I understand that all data collected will be strictly anonymous and that will only be used for research and academic purposes.

Please fill the data you

- I consent notes, times and other quantitative measures to be recorded during the experiment
- I consent pictures to be taken (maintaining confidentiality) for research and academic purposes.

Please sign below to indicate that you have read and you understand the information on this form and that any questions you might have about the session have been answered.

Date: _____ Please sign your name: _____

Thank you!
I appreciate your participation.

Teresa Santos Coelho

J – User Testing Script

INTRODUCTION

Hi _____,
First of all, I would like to thank you so much for helping me!

My name is Teresa and I here today because I need your help. I am working on a project that is trying to join multiple activities that are available nearby where you live and make them available for young people just as like you for free! For that reason I am building a website where these activities will be posted.

This website however needs to be tested so that I can correct things that are wrong or that could be improved. I'll ask you complete a few small tasks and I'll evaluate how the website behaves!

There are not wrong or right answers and you will not be evaluated! This test will take around 15 minutes.

Do you have any questions?
Are you ready to start?

TASKS

I am going to give you five tasks and you will be doing each of them one by one. I will ask you to think aloud, which means that you should say everything that comes into your mind, such as "I do (not) like this", "I am going to see what this does", "I am going to do this"...

Do you have any questions about this?
So let's start!

1. Read the instructions on the home page. How does the system work?
2. Sign in to the English teaching event. What did you think? Was it easy?
3. Sign in to the paintball offer. What did you think? Was it easy?
4. Do you think you would use this website?
5. Is there something you would do differently?
6. Do you have any suggestions/ideas/comments?

Thank you so much for your help!
As a reward you can chose one of any of these candies 😊